

Docket:	:	A.20-07-012
Exhibit Number	:	Cal Advocates - _____
Commissioner	:	G. Shiroma
Administrative Law Judge	:	C. Ferguson
Public Advocates Office	:	S. Lam
Witness	:	



**REPORT AND RECOMMENDATIONS  
ON GSWC DISTRICT A&G EXPENSES, DISTRICT  
LABOR EXPENSES, CONSERVATION EXPENSES, AND  
SPECIAL REQUEST 4**

**Application 20-07-012**

**San Francisco, California  
February 16, 2021**



## **MEMORANDUM**

1           The Public Advocates Office at the California Public Utilities Commission (Cal  
2 Advocates) examined requests and data presented by Golden State Water Company  
3 (GSWC) in Application (A.) 20-07-012 (Application) to provide the California Public  
4 Utilities Commission (Commission) with recommendations that represent the interests of  
5 ratepayers for safe and reliable service at the lowest cost. This Report is prepared by  
6 Sam Lam. Eileen Odell is Cal Advocates' project lead for this proceeding. Victor Chan  
7 is the oversight supervisor and Shanna Foley and Jamie Ormond are legal counsel.

8           Although every effort was made to comprehensively review, analyze, and provide  
9 the Commission with recommendations on each ratemaking and policy aspect of the  
10 requests presented in the Application, the absence from Cal Advocates' testimony of any  
11 particular issue does not constitute its endorsement or acceptance of the underlying  
12 request, or of the methodology or policy position supporting the request.

13



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## **EXECUTIVE SUMMARY**

### **I. Introduction**

This report presents the Public Advocates Office's (Cal Advocates) analysis and recommendations regarding Golden State Water Company's (GSWC) requests related to its rate making areas' Administrative & General Expenses (District A&G Expenses), rate making areas' Labor expenses (District Labor Expenses), Conservation Expenses, and Special Request 4. Note that GSWC's requests related to A&G expenses for its General Office are addressed in the Public Advocates Office Report on General Office, though aspects of those recommendations are discussed here as well. Additionally, this report does not incorporate Cal Advocates' recommendation regarding GSWC's use of customer growth factors to escalate test year A&G expenses, which is discussed in the Public Advocates Office Report on Customer Growth Factors and Golden State Water Company's Low Income Assistance Program.

### **II. Summary of Recommendations**

#### **A. Chapter 1: District A&G Expenses**

The California Public Utilities Commission (CPUC or Commission) should adopt GSWC's requested A&G expenses budget with exceptions to Account 797 (Regulatory Commission Expenses) and Account 799 (Miscellaneous General Expenses). The Commission should adopt Cal Advocates reduction of \$199 to Account 797 because this amount was "erroneously coded to object account 7170 – Regulatory Expenses."<sup>1</sup> The Commission should adopt Cal Advocates' reduction of \$54,358.53 to Account 799 in Test Year (TY) 2022 because the resulting amount better reflects a reasonable ratepayer portion of GSWC's membership dues.

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<sup>1</sup> Attachment 1-2, GSWC Response to Public Advocates DR SLM-013, Q.1.a.



1                   B. Chapter 2: District Labor Expenses

2                   The Commission should adopt Cal Advocates’ recommendation on labor expenses  
3 by removing position #488 (Customer Service Representative), for which GSWC  
4 requested a title change but did not provide any information and analysis to justify the  
5 proposed changes in the Application and Prepared Testimonies- which includes a change  
6 in paygrade (a 36.75% to 124.44% increase) and a change in operational duties for  
7 position #488 (from a Customer Service Representative to a Water Distribution Support  
8 staff).<sup>2</sup> The Commission should adopt Cal Advocates’ labor expenses with the COVID-  
9 19 adjustment. Finally, the Commission should adopt GSWC’s request for a new  
10 Operations Engineer and GSWC’s request to eliminate three vacant positions.  
11

12                   C. Chapter 3: Conservation Expenses

13                   The Commission should deny GSWC’s request to increase its TY 2022  
14 conservation expense budget in ratemaking areas (to \$1,166,189 annually) with an  
15 exception to the Los Osos RMA. Except for Los Osos RMA,<sup>3</sup> GSWC’s other RMAs are  
16 not under mandatory restrictions. As such, the Commission should adopt a conservation  
17 expense budget of \$1,066,189 annually – which balances the Commission’s goals to set  
18 rates that balance investment, conservation, and affordability, during these difficult  
19 financial times.  
20

21                   D. Chapter 4: Special Request 4

22                   The Commission should deny GSWC’s request to continue the CCPPP and to  
23 include the costs of providing the CCPPP in rates because (1) pursuant to AB 1180, the  
24 “pilot program adopted pursuant to this subdivision shall be limited to the duration of the  
25 water corporation’s rate case cycle”<sup>4</sup> – as such, the time period that GSWC is requesting

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<sup>2</sup> The Prepared Testimony of Nanci Tran and the Prepared Testimony of Denise Kruger.

<sup>3</sup> Los Osos system and Edna Road system ratepayers are under mandatory stage 1 restrictions and mandatory stage 2 restrictions since 2016, respectively.

<sup>4</sup> Assembly Bill 1180, Chapter 254.

1 for the continuation of the CCPPP is beyond the time period authorized by AB 1180. (2)  
2 The Commission’s report of this program to the Legislature (Report) has concluded that  
3 “a broader waiver on transaction fees for all individuals paying by credit card is both cost  
4 ineffective and regressive in its impact on customer rates.”<sup>5</sup> (3) The Commission should  
5 adhere to the cost-causation principle where customers should bear the cost they cause  
6 the utility to incur. (4) Energy utilities that serve 87.57% of all Californians include a  
7 transaction fee for utility bills paid with a credit or debit card. In addition, GSWC began  
8 accepting credit card, debit card, and electronic check services for bill payments in  
9 September 2002<sup>6</sup> and removal of the CCPPP will not impact a customer’s ability to pay  
10 their bills with a credit card, debit card, or an electronic check payment.

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<sup>5</sup> See Attachment 4-2, Report to the Legislature on Credit Card Pilot Program, p. 19.

<sup>6</sup> Attachment 4-1, GSWC Response to Public Advocates DR SLM-014, Q.1.



## **CHAPTER 1: DISTRICT A&G EXPENSES**

### **I. Introduction**

This chapter presents Cal Advocates’ analysis and recommendations regarding GSWC’s Administrative & General (A&G) expenses budget for its eight separate ratemaking areas (RMAs) in General Rate Case Application (A.) 20-07-012. A&G expenses include (791) administrative and general salaries (discussed in Chapter 2 of this report), (792) office supplies and other expenses, (793) property insurance, (794) injuries and damages, (795) employees’ pensions and benefits <sup>7</sup>, (796) franchise requirements, (797) regulatory commission expenses, (798) outside services employed, (799) miscellaneous general expenses, and (805) maintenance of general plant.<sup>8</sup> GSWC primarily forecasts A&G expenses for TY 2022 using the guidelines set in the Revised Rate Case Plan (RCP, Decision 07-05-062). Cal Advocates’ recommendations in this report are exceptions to GSWC’s TY 2022 A&G expenses forecast.

In general, GSWC forecasts A&G expenses for a given account and its sub-accounts by escalating the inflation-adjusted, five-year (2015-2019) average of historical data, per the guidelines discussed in the Rate Case Plan (RCP) D.07-05-062.<sup>9</sup> GSWC removes non-recurring and significant expense items from historical data prior to escalation and adds amounts for anticipated costs not captured by the historical average.<sup>10</sup>

The inflation rate applied to each expense category was in accordance with the Commission Decision No. 04-06-018, Escalation of Labor and Non-Labor Expenses. The inflation rates include a composite inflation rate, a labor inflation rate, and the CPI-U (previous 12 months)...

Additionally, estimates for standard A&G Expenses were adjusted for customer growth. Administrative and general costs are related to both the size and the demand put on the system. Customer growth increases

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<sup>7</sup> (795) Employees’ Pensions and Benefits are discussed in full in the Public Advocates Office Report on General Office.

<sup>8</sup> Account numbers and descriptions are provided in the Uniform System of Accounts for Class A Water Utilities, prescribed by the Public Utilities Commission of the State of California, p. A106.

<sup>9</sup> Decision 07-05-062, p. A-24.

<sup>10</sup> Decision 07-05-062, p. A-19. Defines a “significant expense” as equal to or greater than 1% of test year gross revenues.

both the size of the system and the demand on the system resulting in increased administrative and general expenses.<sup>11</sup>

**Table 1-1: GSWC 2014-2019 A&G Expenses**

GSWC 2014-2019 A&G Expenses							
	2014	2015	2016	2017	2018	2019	Average
A&G Expenses (In Thousands)	\$ 56,927.60	\$ 59,055.00	\$ 61,078.00	\$ 59,112.00	\$ 59,242.00	\$ 56,536.00	\$ 58,658.43
A&G Expenses (% Change)	N/A	3.74%	3.43%	-3.22%	0.22%	-4.57%	-0.08%
Number of Connections	254,760	256,202	257,681	258,611	259,513	260,333	257,850
Number of Connections (% Change)	N/A	0.57%	0.58%	0.36%	0.35%	0.32%	0.43%

Table 1-1 above summarizes GSWC's A&G Expenses and number of connections rate of change between 2014-2019. A&G Expenses has decreased at .08% per year while the number of connections increased at .43%.<sup>12</sup>

While Cal Advocates does not oppose GSWC's general methodology for projecting TY 2022 A&G expenses, the Commission should remove certain historical costs related to membership dues, as described below. Further, the Commission should reject GSWC's request to use customer growth factors to increase test year A&G expense forecasts, as this methodology would likely overcompensate GSWC for their actual costs. This recommendation is discussed in full in the Public Advocates Office Report on Customer Growth Factors and Golden State Water Company's Low Income Assistance Program.

## **II. Summary of Recommendations**

The Commission should adopt Cal Advocates' recommendation of the A&G expense budget request with the following exceptions:

- Deny GSWC's request to recover membership dues paid to organizations whose activities do not primarily benefit ratepayers (chambers of commerce, rotary clubs, employee development organizations, etc.) in

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<sup>11</sup> Prepared Testimony of Brad Powell, p. 14.

<sup>12</sup> A summary of the nine GSWC submitted Results of Operations for the nine ratemaking areas.

Account 799. This reduces the amount in Account 799 by \$54,358.53 in TY 2022.

- Remove amounts erroneously recorded in GSWC’s regulatory commission expenses budget in Account 797. This reduces the amount in Account 797 by \$199 in TY 2022.

Cal Advocates’ recommendations above will reduce GSWC’s requested A&G expense budget by \$145,003.70 in TY 2022.

### **III. Discussion**

#### **A. Membership Dues (WUDF Account 799, Object Account 7061 & Object Account 7062)**

The Commission should deny cost recovery of membership dues that do not benefit a water utility’s water-related operations and should split the cost of dues for memberships that benefit both ratepayers and shareholders between both parties. As such, the Commission should adopt a membership dues expense budget of \$31,940.10 for GSWC’s Object Accounts 7061 (Membership Dues – Company) and 7062 (Membership Dues – Employee) in TY 2022.

The Uniform System of Accounts defines membership dues as “fees and dues in trade, technical, and professional associations paid by utility for employees. (Company memberships are includible in Account 799).”<sup>13</sup> However, GSWC’s expense category, Membership Dues – Company, includes the costs of company memberships with Chambers of Commerce, National Association of Water Companies (NAWC), American Water Works Association (AWWA), and California Water Association (CWA). Membership Dues – Employee includes the cost of employee memberships in organizations including Rotary, Kiwanis, and the American Institute of Certified Public

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<sup>13</sup> Uniform System of Accounts for Class A Water Utilities, prescribed by the Public Utilities Commission of the State of California, p. A132.

1 Accountants.<sup>14</sup> The Commission should deny GSWC’s recovery of membership dues  
2 paid to organizations for which memberships do not primarily benefit the ratepayers.

3 Between 2015-2019, GSWC has paid membership dues (Object Account 7061) to  
4 various chambers of commerce.<sup>15</sup> A chamber of commerce is a business network whose  
5 goal is to further the interests of the member businesses. Business owners form these  
6 local societies to advocate on behalf of the business community.<sup>16</sup> As the mission of a  
7 chamber of commerce is to further business interests, it is unclear how memberships in  
8 these organizations benefit ratepayers, whose interests may be at odds with the business  
9 interests of the member utility. GSWC’s ratepayers should not be burdened with the  
10 costs associated with these membership dues because ratepayers may not benefit from the  
11 financial goals of these chambers of commerce.

12 Similarly, GSWC paid membership dues (Object Account 7061) to a number of  
13 rotary clubs and community organizations between 2015-2019.<sup>17</sup> However, these  
14 organizations do not benefit ratepayers directly in terms of water services nor does  
15 membership improve GSWC’s water-related operations. For example, the Norwalk  
16 Lions Club of California aims to “provide services and assistance to those in need,  
17 wherever needs exist... Through [Norwalk Lions Club of California’s services, the less  
18 fortunate] expand with leadership opportunities and gain skills valuable to business and  
19 professional life.”<sup>18</sup> Membership dues paid to these organizations may help improve the  
20 community but do not directly contribute to improving GSWC’s water-related operations,  
21 and therefore, should not be recovered through rates. Likewise, dues paid to the Cordova

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<sup>14</sup> Prepared Testimony of Brad Powell, p. 21.

<sup>15</sup> GSWC paid membership dues to chambers of commerce in the following cities/areas: Rancho Cordova, Bay Point, Clearlake, Los Osos/Baywood Park, Santa Maria Valley, Simi Valley, Artesia, South Gate, Carson, Inglewood/Airport Area, Gardena Valley, Cypress, Los Alamitos Area, Yorba Linda, Claremont, San Dimas, Rosemead, Temple City, San Gabriel, Apple Valley, and Morongo Valley

<sup>16</sup> Wikipedia contributors. (2020, October 15). Chamber of commerce. In *Wikipedia, The Free Encyclopedia*. Retrieved 06:43, November 4, 2020, from [https://en.wikipedia.org/wiki/Chamber\\_of\\_commerce](https://en.wikipedia.org/wiki/Chamber_of_commerce)

<sup>17</sup> Examples include Cordova Community Council Foundation, Cordova Community Food Locker, Rotary Club of Clearlake, Simi Valley Rotary Club, Norwalk Lion’s Club of California, Culver City Lions Club, and the International Association of Lions Clubs, etc.

<sup>18</sup> <https://e-clubhouse.org/sites/norwalkca/>

1 Community Council Foundation and the Cordova Community Food Locker may be  
2 beneficial for the community – but GSWC’s shareholders should be fully responsible for  
3 these dues. These contributions should be considered as GSWC’s goodwill to the  
4 community. Thus, GSWC’s shareholders, not the ratepayers, should bear the burden of  
5 this expense.

6 Between 2015-2019, GSWC paid membership dues (Object Account 7062) to the  
7 following Kiwanis clubs (e.g. Kiwanis Club of Placentia Foundation, Kiwanis Club of  
8 Barstow, Kiwanis Club of Hawthorne, etc.). “Kiwanis is a global organization of  
9 volunteers dedicated to improving the world one child and one community at a time.”<sup>19</sup>  
10 Again, these organizations may provide benefits to the community, but it is unclear how  
11 membership benefits ratepayers in terms of GSWC’s water-related operations. Thus,  
12 ratepayers should not be burdened with the cost of securing GSWC’s goodwill in the  
13 community it serves.

14 Cal Advocates removed membership dues paid to the organizations discussed  
15 above from the historical amounts used to create GSWC’s test year forecast. Table 1-2  
16 summarizes Cal Advocates’ adjustments to GSWC’s historical membership dues expense  
17 (2015-2019).

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<sup>19</sup> <https://www.kiwanis.org/about/mission>



**Table 1-2: Recorded Membership Dues and Adjustment of Non-Related**

**Organizations**

<b>Recorded WUDF 799 - Object Account 7061 (Membership Dues - Company)</b>					
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
GSWC's Recorded Expense	\$ 43,681.35	\$ 36,351.82	\$ 76,338.32	\$ 78,383.33	\$ 69,851.35
Cal Advocates' Adjustments	<b>\$ (14,194.60)</b>	<b>\$ (13,269.60)</b>	<b>\$ (25,344.60)</b>	<b>\$ (21,559.60)</b>	<b>\$ (22,799.60)</b>
<b>Recorded WUDF 799 - Object Account 7062 (Membership Dues - Employee)</b>					
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
GSWC's Recorded Expense	\$ 10,634.79	\$ 8,361.42	\$ 14,362.49	\$ 10,533.12	\$ 17,356.25
Cal Advocates' Adjustments	<b>\$ (50.00)</b>	<b>\$ (50.00)</b>	<b>\$ (1,776.00)</b>	<b>\$ (1,975.00)</b>	<b>\$ (4,290.00)</b>

While the recommendation above applies to organizations that are not directly related to GSWC's provision of water services, GSWC is a member of a number of organizations that are directly related to that service (such as memberships in NAWC, AWWA, CWA, etc.). The Commission should allow GSWC to recover fifty % of the dues for memberships (after non-regulated and charitable contribution portions are removed) which benefit both shareholders and ratepayers, better reflecting the shared benefits of such membership.<sup>20</sup> Membership dues paid to NAWC, AWWA, CWA, and similar organizations benefit both the shareholders and ratepayers, and the responsibility of the cost should be shared equally amongst both parties. Table 1-3 below summarizes all of Cal Advocates' adjustments to GSWC's recorded membership dues from 2015-2019 as discussed above.

<sup>20</sup> Because most of GSWC's memberships in such organizations are accounted for in its General Office expense accounts, this recommendation is discussed in this chapter, but addressed in full in the Public Advocates Office Report on General Office.

**Table 1-3: Recorded Membership Dues and All Adjustments**

<b>Recorded WUDF 799 - Object Account 7061 (Membership Dues - Company)</b>					
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
GSWC's Recorded Expense	\$ 43,681.35	\$ 36,351.82	\$ 76,338.32	\$ 78,383.33	\$ 69,851.35
Cal Advocates' Recommendation	\$ 14,743.38	\$ 11,541.11	\$ 25,496.86	\$ 28,411.87	\$ 23,525.88
<b>Recorded WUDF 799 - Object Account 7062 (Membership Dues - Employee)</b>					
	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
GSWC's Recorded Expense	\$ 10,634.79	\$ 8,361.42	\$ 14,362.49	\$ 10,533.12	\$ 17,356.25
Cal Advocates' Recommendation	\$ 5,292.40	\$ 4,155.71	\$ 6,293.25	\$ 4,279.06	\$ 6,533.13

The Commission should remove \$54,358.53 from TY 2022 A&G expenses, representing all of Cal Advocates' adjustment to GSWC's membership dues forecast: (1) removal of dues paid to non-water service related organizations and (2) allow GSWC to recover fifty % of the cost of memberships with water service-related organizations, which benefits shareholders and ratepayers alike.<sup>21</sup> In sum, the Commission should adopt a TY 2022 membership dues expense budget of \$31,940.10, incorporating the total recommended reduction of \$54,358.53 in TY 2022 as described above.

**B. WUDF Account 797 – Regulatory Expenses**

The Commission should deny GSWC's regulatory expenses budget request of \$199 in Santa Maria. The expense amount was erroneously coded to Object Account 7170 – Regulatory Expenses in GSWC's RO Model. The expense amount is not used in any future expense forecast for the Santa Maria Customer Service Area (CSA) or the General Office due to its miscoding.<sup>22</sup> The regulatory expenses are forecasted at the General Office level and allocated to the various RMAs. As such, the Commission should adopt a regulatory expense budget of \$0 in Santa Maria.

<sup>21</sup> \$54,358.53 does not include the removal of the Customer Growth Factor in escalating A&G expenses.

<sup>22</sup> Attachment 1-2, GSWC Response to Public Advocates DR SLM-013, Q.1.a.

1   **IV.   Conclusion**

2           The Commission should deny GSWC's request to recover the costs associated  
3 with membership dues that do not directly benefit ratepayer's water services or the  
4 utility's water-related operations. The Commission should allow GSWC to only recover  
5 fifty % of membership dues that are mutually beneficial for GSWC and ratepayers. The  
6 Commission should deny GSWC's erroneously coded regulatory expense budget in the  
7 Santa Maria RMA. These recommendations represent a \$145,003.70 dollar reduction to  
8 GSWC's proposed test year expense budgets.  
9

## **CHAPTER 2: DISTRICT LABOR EXPENSES**

### **V. Introduction**

This chapter presents Cal Advocates' analysis and recommendations regarding GSWC's requested labor expenses budget in its RMAs. GSWC requests: (1) cost center changes for three Customer Service Representatives (#387, #422, #479), one SCADA Specialist (#603), and one SCADA IT Analyst (#605); (2) a title change for one Customer Service Representative (#488) to one Water Distribution Support staff; (3) funding for a new Operations Engineer in the Mountain Desert District in Region 3, and (4) eliminating two Customer Service Representatives (#522, #577) and one Operations Superintendent (#587).

GSWC forecasts TY 2022 labor expenses by escalating the base 2020 labor expenses by the labor inflation factors, the customer growth factor, and a 1% merit adjustment.<sup>23</sup> The merit adjustment is calculated as a percentage of all employee salaries but is implemented as a pool of funds available to be awarded to employees who perform above the level expected for their positions.<sup>24</sup> Additional adjustments include a vacancy adjustment (reduction) and an overtime adjustment (addition).<sup>25</sup> GSWC has reduced the labor expenses budget by a vacancy percentage derived by the ratio of expensed labor of vacant position to the total expensed labor of each RMA.<sup>26</sup> An overtime rate based on the five-year average is added to cover overtime costs.<sup>27</sup>

### **VI. Summary of Recommendations**

The Commission should adopt the following COVID-19 Adjustment regarding GSWC's TY 2022 labor expenses budget.

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<sup>23</sup> Prepared Testimony of Nanci Tran, p.5.

<sup>24</sup> Prepared Testimony of Nanci Tran, p.7.

<sup>25</sup> Prepared Testimony of Nanci Tran, p.6.

<sup>26</sup> Prepared Testimony of Nanci Tran, p.7.

<sup>27</sup> Prepared Testimony of Nanci Tran, p.7.

- Reject GSWC’s request to escalate test year labor expenses with the 1% merit adjustment in 2020-2022.
- Reject GSWC’s request to escalate test year labor expenses with the labor inflation factors in 2020-2022.

The Commission should adopt the following regarding GSWC’s individual positional requests.

- Deny one (1) position title changes.
- Accept adding a new Operations Engineer staff in the Mountain Desert District.
- Accept eliminating three vacant staff positions.
- Accept cost center change.

## **VII. Discussion**

### **A. COVID-19 Adjustment**

The Commission should adopt a \$20,167,717.85 labor expense budget for TY 2022 (a reduction of \$1,673,479.88 from GSWC’s labor expense budget request). This budget reflects the economic realities of COVID-19 by rejecting GSWC’s requests for salaries augmented by inflation factors and a 1% merit adjustment.<sup>28</sup> GSWC forecasts TY 2022 district labor expenses by escalating the base 2020 salary with inflation factors (in addition to a customer growth factor and a 1% merit adjustment). However, the Commission should deny such factors from escalating the labor expenses due to the special circumstances surrounding California and ratepayers in 2020 and the near future and the Commission should look to improve affordability where reasonable.

Beginning in 2020, the COVID-19 pandemic has changed the lives of many Californians (and Americans at large) through severe economic disruption. As a response to the COVID-19 pandemic, the State of California issued a stay-at-home order

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<sup>28</sup> This budget also reflects the recommendation to reject the use of Customer Growth Factors to forecast test year labor expenses, which has separate support and is discussed in Public Advocates Report and Recommendations on GSWC’s Use of Customer Growth Factors and Low Income Assistance Program.

1 to all Californians on March 19, 2020.<sup>29</sup> Almost immediately, unemployment increased  
2 drastically in California.<sup>30</sup> Compared to a year ago, unemployment in April 2019 and  
3 April 2020 was 4.2% and 16.4% respectively (an increase of 12.2% compared to the  
4 same period a year ago).<sup>31</sup> As of September 2020, the unemployment rate stands at  
5 11.0% (compared to 4.0% in September 2019).<sup>32</sup> While unemployment declined in  
6 September 2020 compared to April 2020, the pandemic induced unemployment is still  
7 prevalent. According to a survey data from TransUnion, approximately 52% of  
8 Americans have stated that they are being financially impacted by the COVID-19  
9 pandemic. 75% of those surveyed are worried about paying their utility bills.<sup>33</sup> It is clear  
10 that the pandemic has caused additional financial burdens for ratepayers and it may affect  
11 ratepayers' access to water, a basic life necessity. The COVID-19 pandemic is not over  
12 and continues to affect the lives of ratepayers as the State of California issued a new  
13 "Limited Stay At Home Order" on November 21, 2020.<sup>34</sup> And with "the rate of rise of  
14 new cases per day continues to increase dramatically," the State of California issued a  
15 new "Regional State At Home Order" on December 03, 2020.<sup>35</sup> The pandemic may  
16 continue to infect an increasing number of Californians and prolonging the effects of the  
17 "COVID-19 recession".<sup>36</sup>

18 The State of California has taken extraordinary measures in recognition of the  
19 economic hardships its citizens now face, including passage of mortgage protections and  
20 a moratorium on evictions through February 1, 2021,<sup>37</sup> preventing utility disconnections

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<sup>29</sup> Executive Order N-33-20.

<sup>30</sup> Unemployment in California was at a record low in January 2020, around 3.9%.

<sup>31</sup> State of California's Employee Development Department

<sup>32</sup> State of California's Employee Development Department

<sup>33</sup> <https://content.transunion.com/v/financial-hardship-report-us-wave-twelve>

<sup>34</sup> <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/limited-stay-at-home-order.aspx>  
(Assessed on November 19, 2020)

<sup>35</sup> California Department of Public Health, Regional Stay At Home Order, 12/03/2020.

<sup>36</sup> Office of Governor Gavin Newsom, May 14, 2020 Press Release: Governor Newsom Submits May Revision Budget Proposal to Legislature 5.14.20, available at  
<https://www.gov.ca.gov/2020/05/14/governor-newsom-submits-may-revision-budget-proposal-to-legislature-5-14-20/>.

<sup>37</sup> AB 3088, signed by Governor Newsom on Aug. 31, 2020.

for non-payment,<sup>38</sup> and preventing COVID-19 relief from being garnished by debt collectors.<sup>39</sup> Further, on June 20, 2020, California’s state worker unions accepted two furlough days per month in a pay-cut deal with California’s Governor Newsom through June 30, 2023,<sup>40</sup> part of Governor Newsom’s May budget revision that reflects the “COVID-19 recession.”<sup>41</sup> This agreement resulted in a 9.23 % pay reduction for California state employees.<sup>42</sup> The State of California acted to balance the State’s budget and reduced costs passed onto ratepayers. Likewise, the Commission should look to reasonably increase the affordability of GSWC’s services and reduce costs passed onto ratepayers by denying GSWC from escalating 2020 labor expenses by an inflation factor between 2020-2022.

Although the Commission has previously approved GSWC’s requests for funding the 1% merit adjustments in order for GSWC to maintain its experienced and higher performing employees,<sup>43</sup> a 1% merit adjustment is not necessary in the COVID-19 affected job market. California’s November 2020 unemployment rate stands at 8.2%, 4.3% higher than it was in November 2019. Table 2-1 below summarizes California’s unemployment rate from January 2019 through November 2020.

**Table 2-1: California Unemployment Data**

California Unemployment Data												
	Jan	Feb	March	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
2019	4.3%	4.3%	4.2%	4.2%	4.1%	4.0%	4.0%	3.9%	3.9%	3.9%	3.9%	3.9%
2020	3.9%	3.9%	5.3%	15.5%	16.3%	14.9%	13.3%	11.4%	11.1%	9.3%	8.2%	N/A

Source: (1) edd.ca.gov and (2) bls.gov

Although unemployment has recovered in November 2020 when compared to April 2020, unemployment in November 2020 is still double that of the average from the period between January 2019 through February 2020. As such, GSWC likely has less

<sup>38</sup> See California Executive Order N-42-20.

<sup>39</sup> Executive Order N-57-20.

<sup>40</sup> <https://www.sacbee.com/news/politics-government/the-state-worker/article243680447.html>

<sup>41</sup> Office of Governor Gavin Newsom, May 14, 2020 Press Release: Governor Newsom Submits May Revision Budget Proposal to Legislature 5.14.20, available at <https://www.gov.ca.gov/2020/05/14/governor-newsom-submits-may-revision-budget-proposal-to-legislature-5-14-20/>.

<sup>42</sup> Side Letter of Agreement between Service Employees International Union, Local 1000 and the State of California, filed on June 19, 2020.

<sup>43</sup> This item was settled by GSWC and Cal Advocates in D.16-12-067 and D.19-05-044.

1 difficulty retaining its experienced and high performing employees. The 1% merit  
2 adjustment is “awarded to employees who perform above the level expected for their  
3 positions,” much like a year-end bonus payment.<sup>44</sup> The Commission should look to  
4 reasonably increase the utility’s service affordability and reduce ratepayer’s financial  
5 burden stemming from the bonus payments in these unprecedented (COVID-19) times by  
6 denying GSWC from escalating 2020 labor expenses by a 1% merit adjustment between  
7 2020-2022.

8         Considering the financial pressures on ratepayers, the Commission should adopt a  
9 labor budget for GSWC that reflects the need for businesses and organizations to  
10 decrease costs to maintain affordability of their services. However, GSWC’s proposed  
11 labor budget fails to reflect this reality. In an economic climate where many Californians  
12 are struggling financially, it would be unreasonable to adopt funding for salary increases  
13 and a bonus merit adjustment for GSWC’s employees between 2020-2022. Rejecting  
14 GSWC’s request to escalate labor expenses with inflation factors and the 1% merit  
15 adjustment helps decrease the cost of water for financially strapped ratepayers in this  
16 economic climate. As such, the Commission should reject GSWC’s requests for a TY  
17 2022 district labor expense budget that incorporate inflation factors and a 1% “merit  
18 adjustment”.

#### 19 20             B. Position Title Changes

21         The Commission should reject GSWC’s request to change the title of Customer  
22 Service Representative (#488) to Water Distribution Support (#488) because GSWC’s  
23 Application provides no information to support the change or the additional expense the  
24 change requires. RCP states clearly that the “utility bears the burden of proving that its  
25 proposed rate increase is justified and must include in the proposed application and  
26 supporting testimony, all information and analysis necessary to meet this burden.”  
27 GSWC did not meet this burden regarding the title change of position #488.

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<sup>44</sup> Prepared Testimony of Nanci Tran, p.6.



1 The Prepared Testimony of Nanci Tran states that “all changes [proposed in Table  
2 NT-1 and NT-2]<sup>45</sup> will be addressed in the Prepared Testimony of Denise Kruger.”<sup>46</sup>  
3 However, information regarding the title change of position #488 is not available in the  
4 Prepared Testimony of Denise Kruger. In fact, GSWC has failed to provide any  
5 justification, information, and analysis in (1) the Application, (2) the Prepared Testimony  
6 of Nanci Tran or (3) the Prepared Testimony of Denise Kruger regarding the proposed  
7 “title change” of position #488. As such, GSWC has failed to include any justification,  
8 information, and analysis to justify the title change of position #488 as per the RCP.

9 Because the requested change is unsubstantiated, GSWC’s Application contains  
10 no information supporting the reasonableness of the increase to GSWC’s labor budget  
11 that the change would entail. The requested salary for the Water Distribution Support  
12 staff position is more than twice the average annual salary for GSWC’s Customer Service  
13 Representative.<sup>47</sup>

14 Ultimately, the two discussed positions have different salary ranges and fulfill  
15 different tasks. As such, this request is not a position’s title change but rather an  
16 elimination of a vacant Customer Service Representation staff position and the addition  
17 of a new Water Distribution Support staff. Therefore, the Commission should deny  
18 GSWC’s request of position #488’s title change.

#### 19 20 C. New/Eliminated Positions

##### 21 1. Eliminated Positions: Customer Service Representatives (#522, #577) 22 and Operations Superintendent (#587).

23 The Commission should adopt GSWC’s request to eliminate two Customer  
24 Service Representatives (#522, #577) and an Operations Superintendent (#587).  
25 Regarding the Operations Superintendent, GSWC has been able to adequately manage  
26 the operation and staff of the Morongo Customer Service Area (CSA) and are able to

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<sup>45</sup> Table NT-2 is the summary of all the title changes GSWC is requesting for in A.20-07-012.

<sup>46</sup> Prepared Testimony of Nanci Tran, p. 3.

<sup>47</sup> Attachment 2-1, GSWC Response to Public Advocates DR AMX-003, Q.1.b Table NT-2

1 eliminate this supervisory position without negatively impacting customer service and  
2 operations.<sup>48</sup> As for the Customer Service Representatives, the Claremont and  
3 Wrightwood CSA offices have successfully met customer walk-in needs without the two  
4 Customer Service Representatives and as such,<sup>49</sup> Cal Advocates does not oppose  
5 GSWC's request to eliminate these two positions. The Commission should approve of  
6 GSWC's request to eliminate the above discussed three positions.

7  
8 2. New Position: Mountain Desert District – Operations Engineer (#632)

9 The Commission should approve GSWC's request to add a new Operations  
10 Engineer (#632) to the Mountain Desert District. GSWC states that "all GSWC Districts,  
11 except the Mountain Desert District, have Operations Engineers. Currently, the  
12 Operations Engineer staff in the Foothill District has been assigned the responsibilities of  
13 the Mountain Desert District. Tasks such as analyzing the treatment systems operations  
14 at the plant to achieve and maintain optimal operating efficiency have not been addressed  
15 due to the heavy workload of covering two Districts."<sup>50</sup> By hiring a new Operations  
16 Engineer in the Mountain Desert District, GSWC will be able to perform the currently  
17 unaddressed Operations Engineer's tasks in the Mountain Desert District and reduce the  
18 workload of the Operations Engineer staff in the Foothill District that are currently  
19 covering two districts.

20  
21 D. Cost Center Changes

22 The Commission should adopt GSWC's request to change the cost center for  
23 Customer Service Representatives (#387, #422, #479), SCADA Specialist (#603), and  
24 SCADA IT Analyst (#605). The new cost centers better reflect the RMAs to which the  
25 above positions allocate their time.

26  

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<sup>48</sup> Prepared Testimony of Denise Kruger, p. 4.

<sup>49</sup> Prepared Testimony of Denise Kruger, p. 5.

<sup>50</sup> Prepared Testimony of Denise Kruger, p. 7.

1 **VIII. Conclusion**

2       The Commission should adopt GSWC's request for labor expenses budget, as  
3   adjusted by the COVID-19 Adjustment. In California's current economic climate  
4   (caused by the COVID-19 pandemic), the Commission should look to reasonably reduce  
5   costs to ratepayers where possible. Denying escalation of labor expenses with inflation  
6   factors and the 1% merit adjustment is appropriate for the COVID-19 impacted duration  
7   of the GRC. Ratepayers should not be responsible for a utility's employee bonuses (1%  
8   merit adjustment) when an overwhelming number of ratepayers are worried about their  
9   increasing debt and inability to pay their utility bills.

10       The Commission should deny GSWC's request to change the position title of the  
11   Customer Service Representative to a Water Distribution Support staff as this request  
12   extends beyond a simple title change. The two positions have different duties and  
13   paygrade and GSWC did not provide any justification, information, and analysis to  
14   support a new Water Distribution Support staff.

15       The Commission should accept GSWC's request to add a new Operations  
16   Engineer in the Mountain Desert District as GSWC adequately supported the need for the  
17   new position. The Commission should accept GSWC's request for cost center changes  
18   related to Customer Service Representatives (#387, #422, #479), SCADA Specialist  
19   (#603), and SCADA IT Analyst (#605).

## **CHAPTER 3: CONSERVATION EXPENSE BUDGET**

### **I. Introduction**

This chapter addresses GSWC's requested conservation expense budgets for all RMAs and presents Cal Advocates' analysis and recommended changes to GSWC's requested budget. GSWC utilizes the conservation expense budget to carry out various conservation programs across the RMAs. For TY 2022, GSWC requests a budget of \$1,166,189.00, an increase of 9.89 % over the previous authorized conservation expense budget in D.19-05-044. The increase stems from GSWC's request to increase the budget for the Direct Install program in Arden Cordova, Los Osos, and Santa Maria and the Irrigation Audits & Incentives Program in Santa Maria. For all other RMAs, GSWC does not request conservation expense budget increases. Table 3-1 below summarizes the cost-benefit analysis completed by GSWC for its 2019-2021 conservation programs.<sup>51</sup> The Simple Payback Analysis completed by GSWC shows the timeframe they expect the investment in the conservation programs to be paid back, after which the programs will return a positive monetary benefit through water savings. GSWC's analysis is reasonable as it takes the annual expected savings per program and compares it with the initial cost of the program to determine the payback period.

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<sup>51</sup> Attachment 3-1, GSWC Response to Public Advocates DR SLM-010, SLM-010 Q.2 2019 to 2021 Cost Benefit.pdf

**Table 3-1: GSWC Conservation Program Cost Benefit Analysis (2019-2021)**

GSWC Conservation Program Simple Payback Analysis (Years)		
CSA	Program	Simple Payback Analysis (Years)
Arden Cordova	School Program	2.9
	Weather Based Irrigation Controller	8.6
	Sprinkler Nozzles	2
	CII Direct Install	2.8
Bay Point	School Program	0.4
Clearlake	School Program	5.3
	Weather Based Irrigation Controller	11.8
	Sprinkler Nozzles	2
Los Osos	School Program	0.7
	Direct Install Program	0.3
Santa Maria	School Program	0.2
	Sprinkler Nozzles	0.1
	Direct Install Program	0.1
	Multi-Family Direct Install	0.1
Simi Valley	School Program	0.1
	Sprinkler Nozzles	0.1
	Direct Install Program	0.1
	Multi-Family Direct Install	0.1
Region 2	School Program	0.1
	Direct Install Program	0.2
Region 3	School Program	0.2
	Direct Install Program	0.2
	Toilet Direct Program	0.2
	Sprinkler Nozzles	0.2

Table 3-2 below summarizes and compares GSWC's authorized conservation expense budget and the dollars spent on conservation programs from the 2016-2018 GRC period. GSWC has spent the authorized amount on its conservation programs for the 2016-2018 GRC cycle. The same spending analysis cannot be completed for the 2019-2021 GRC cycle as the period is not over yet.

**Table 3-2: GSWC Conservation Program Spending (2016-2018)**

<b>GSWC Conservation Program Spending (2016-2018)</b>		
<b>CSA</b>	<b>Authorized</b>	<b>Spent</b>
Arden Cordova	\$ 322,464.00	\$ 349,623.00
Bay Point	\$ 36,756.00	\$ 37,020.00
Clearlake	\$ 12,429.00	\$ 20,089.00
Los Osos	\$ 26,892.00	\$ 38,282.00
Santa Maria	\$ 143,490.00	\$ 152,510.00
Simi Valley	\$ 141,141.00	\$ 142,675.00
Region 2	\$ 1,168,533.00	\$ 1,186,912.00
Region 3	\$ 1,331,862.00	\$ 1,356,067.00

## **II. Summary of Recommendations**

The Commission should reject GSWC's request to increase its conservation expense budgets for its Arden Cordova and Santa Maria RMAs because neither RMA is under mandatory conservation orders and so the expense budget increases are currently unwarranted. Cal Advocates does not oppose GSWC's request to increase its conservation expense budget in its Los Osos RMA because Los Osos continues to be subjected to mandatory conservation requirements.<sup>52</sup>

Table 3-3 below summarizes Cal Advocates' recommendation of and GSWC's requested TY 2022 conservation expense budget.

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<sup>52</sup> Prepared Testimony of Edwin DeLeon, p. 23.

**Table 3-3: TY 2022 Conservation Expense Budget**

TY2022 Conservation Expense Budget		
RMA	Cal Advocates Recommendation	GSWC Requests
Arden Cordova	\$ 107,488.00	\$ 157,488.00
Bay Point	\$ 12,252.00	\$ 12,252.00
Clearlake	\$ 4,143.00	\$ 4,143.00
Los Osos	\$ 13,964.00	\$ 13,964.00
Santa Maria	\$ 47,830.00	\$ 97,830.00
Simi Valley	\$ 47,047.00	\$ 47,047.00
Central District	\$ 194,756.00	\$ 194,756.00
Southwest District	\$ 194,756.00	\$ 194,756.00
Orange County District	\$ 147,985.00	\$ 147,985.00
Foothill District	\$ 147,985.00	\$ 147,985.00
Mountain District	\$ 147,985.00	\$ 147,985.00
<b>Total</b>	<b>\$ 1,066,191.00</b>	<b>\$ 1,166,191.00</b>

### **III. Discussion**

#### **A. Arden Cordova**

The Commission should adopt an annual conservation expense budget of \$107,488.00 in Arden Cordova for TY 2022 and reject GSWC’s request to increase funding for its Direct Install program. The RCP outlines that one of the objectives is to “set rates that balance investment, conservation, and affordability.”<sup>53</sup> GSWC’s Direct Install Programs help promote conservation through assisting customers in installing ultra-high efficiency toilets (UHETS) and other high efficiency products. GSWC requests to increase the Direct Install Program budget in Arden Cordova by \$50,000 annually, from \$25,773 to \$75,773. GSWC states that its “vendors have identified a number of CII and CARW customers wanting to participate in this program” but does not provide any additional details, such as a cost-benefit analysis, to justify the requested increase.<sup>54</sup> While increasing the Direct Install Program’s budget may have a positive effect on conservation, the Commission should be mindful of the impact of increasing rates to ratepayers due to the direct transfer of costs to individual customers. As the COVID-19 pandemic has brought upon much financial stress onto ratepayers (as

<sup>53</sup> D.07-05-062, p. 4.

<sup>54</sup> Prepared Testimony of Edwin DeLeon, p. 21.

discussed in Chapter 2 of this Report),<sup>55</sup> the Commission should authorize Arden Cordova’s TY 2019 conservation expense budget at the same level as TY 2022’s conservation expense budget. One of the Commission’s goals is to establish rates that balance investment, conservation, and affordability – and extra emphasis should be put onto the affordability aspect for the duration of this GRC. As the Arden Cordova RMA is currently not under any state mandated restrictions, the importance of affordability outweighs the need for additional investment into Arden Cordova’s conservation expense budget for the duration of this GRC. The Commission should look to improve affordability for ratepayers by reducing unnecessary budget increase requests where appropriate.

Given the uncertain future of COVID-19 and the “reopening” timeline of the economy and if additional funding is required for the Direct Install Program, GSWC may choose to adjust conservation funding from outreach programs such as School Education Program and Workshops (which requires public group gatherings) and allocate the additional conservation funding towards the Direct Install Program (as needed), where ratepayers can participate without health and safety risks.<sup>56</sup> By doing so, GSWC will not increase the financial burden on ratepayers and GSWC will not be harmed by the lack of increase because GSWC has the flexibility to reallocate funds from other conservation programs.

Ultimately, GSWC has not justified the need to increase Arden Cordova’s conservation expense budget in these COVID-19 impacted times. The Commission should reduce cost increases to ratepayers where available and deny GSWC’s requested conservation budget increase in Arden Cordova.

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<sup>55</sup> TransUnion reports that 75% of those surveyed are worried about paying their utility bills. [Found at <https://content.transunion.com/v/financial-hardship-report-us-wave-twelve>]

<sup>56</sup> The Official California State Government Website for COVID-19 does not provide a timeline for the reopening of the California economy. (<https://covid19.ca.gov/> accessed on November 4<sup>th</sup>, 2020).



1                   B. Santa Maria

2                   The Commission should adopt a conservation expense budget of \$47,830 in Santa  
3 Maria RMA and reject GSWC's requests for a budget increase. GSWC requests to  
4 increase both the Irrigation Audits & Incentives and the Direct Install Programs by  
5 \$25,000 annually each (a total of \$50,000 annually). Given that one of the Commission's  
6 objectives is to "Set rates that balance investment, conservation, and affordability," as  
7 outlined in the RCP<sup>57</sup> and whilst the Direct Install Program and the Irrigation Audits &  
8 Incentives program have a positive effect on conservation<sup>58</sup> - the Commission should  
9 look to balance investment in conservation with affordability and to deny GSWC's  
10 requested budget increase. The Santa Maria RMA is not under any mandatory  
11 conservation restrictions currently and further investments to increase its conservation  
12 expense budget is unnecessarily given the current COVID-19 impacted economic  
13 climate. As such, the Commission should reject proposed budget increases to ratepayers  
14 where appropriate and ensure that Santa Maria's ratepayers are not burdened with  
15 additional expenses in these financially difficult times. Regarding the uncertain future  
16 COVID-19 and the "reopening" of California's economy, the Santa Maria RMA should  
17 have the same flexibility in allocation of the conservation expense budget as stated above  
18 in the Arden Cordova RMA.

19  
20                   C. Los Osos

21                   The Commission should adopt a conservation expense budget of \$13,964 in Los  
22 Osos for TY 2022. The Los Osos RMA is an example where increased investment  
23 (offsetting affordability) will help increase conservation. The Los Osos system and Edna  
24 Road system customers have been in Mandatory Stage 1 and Mandatory Stage 2  
25 conservation, respectively, since November 1, 2016.<sup>59</sup> Cal Advocates does not oppose  
26 the request or program execution methodology. The increase in the budget to the Direct

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<sup>57</sup> D.07-05-062, p. 4.

<sup>58</sup> Refer to Table 3-1 for GSWC's conservation program cost-benefit analysis.

<sup>59</sup> <https://www.gswater.com/post/drought>

1 Install Program should be directly allocated to assist customers in the Los Osos system  
2 and Edna Road system to align the customers with the standards set in Schedule 14.1-LO,  
3 *Staged Mandatory Conservation and Rationing*.<sup>60</sup> The increased conservation expense  
4 budget (allocated to the Direct Install Program) should help improve ratepayers'  
5 transition out of mandatory restrictions. The Commission should accept GSWC's request  
6 to increase Los Osos's conservation expense budget.

#### 8 **IV. Conclusion**

9 The Commission should adopt a conservation expense budget based on what was  
10 authorized for TY 2019 in D.19-05-044 (\$1,061,189.00 annually) with an exception for  
11 the Los Osos RMA, for which Cal Advocates does not oppose GSWC's requested  
12 conservation budget increase. With exception to the Los Osos RMA, GSWC's ratepayers  
13 are not placed under mandatory restrictions and as such, suggests that the current  
14 conservation expense budget is sufficient for achieving the Commission's goals to set  
15 rates that balance investment, conservation, and affordability.

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<sup>60</sup> <https://www.gswater.com/sites/main/files/file-attachments/schedule-14-1-los-osos-system.pdf?1591049127>

## **CHAPTER 4: SPECIAL REQUEST 4 – CREDIT CARD PAYMENT PILOT PROGRAM**

### **I. Introduction**

Pursuant to Assembly Bill (AB) 1180, the Commission authorized GSWC to initiate a Credit Card Payment Pilot Program (CCPPP) in 2019.<sup>61</sup> The CCCPP is designed to evaluate customer interest in, and utilization of, bill payment options, including but not limited to, credit card, debit card, and prepaid card bill payment options, and to assess the cost-effectiveness of, and customer interests served by, customer access to those bill payment options.<sup>62</sup> The bill requires the Commission to allow a water corporation to recover the reasonable expenses incurred by the water corporation in providing its customers with these bill payment options, and to allow water corporations to not impose a transaction fee on individual customers for using these bill payment options, but rather socialize these individual costs to all customers.<sup>63</sup> The bill also requires the Commission, in consultation with the Low-Income Oversight Board, to submit a report to specified legislative committees that, based on specified assessments, evaluates the usefulness of an individual customer transaction fee and includes a recommendation regarding individual customer transaction fees for credit card, debit card, and prepaid card bill payments accepted by water corporations.<sup>64</sup> In this GRC, GSWC requests that it be allowed to continue to provide the CCCPP and to include the transaction fees cost for the program in rates if the Commission's report supports the continuation of the CCCPP.<sup>65</sup>

### **II. Summary of Recommendations**

The Commission should deny GSWC's request to continue the CCCPP and to include the costs of providing the CCCPP in rates because (1) pursuant to AB 1180, the

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<sup>61</sup> Decision. 19-05-044

<sup>62</sup> Assembly Bill No. 1180, Chapter 254.

<sup>63</sup> Assembly Bill No. 1180, Chapter 254.

<sup>64</sup> Assembly Bill No. 1180, Chapter 254.

<sup>65</sup> Prepared Testimony of Brad Powell, p.49.

1 “pilot program adopted pursuant to this subdivision shall be limited to the duration of the  
2 water corporation’s rate case cycle”<sup>66</sup> – as such, the time period that GSWC is requesting  
3 for the continuation of the CCPPP is beyond the time period authorized by AB 1180. (2)  
4 The Commission’s report of this program to the Legislature (Report) has concluded that  
5 “a broader waiver on transaction fees for all individuals paying by credit card is both cost  
6 ineffective and regressive in its impact on customer rates.”<sup>67</sup> (3) The Commission should  
7 adhere to the cost-causation principle where customers should bear the cost they cause  
8 the utility to incur. (4) Energy utilities that serve 87.57% of all Californians include a  
9 transaction fee for utility bills paid with a credit or debit card. In addition, GSWC began  
10 accepting credit card, debit card, and electronic check services for bill payments in  
11 September 2002<sup>68</sup> and removal of the CCPPP will not impact a customer’s ability to pay  
12 their bills with a credit card, debit card, or an electronic check payment.

### 14 **III. Discussion**

#### 15 **A. California Assembly Bill 1180**

16 The Commission should reject GSWC’s request to continue the CCPPP in TY  
17 2022. AB 1180 authorizes a water corporation with more than 10,000 service  
18 connections to seek Commission approval to operate a payment pilot program; the pilot  
19 program is to be “limited to the duration of the water corporation’s rate case cycle.”<sup>69</sup>  
20 GSWC requested authorization for the CCPPP in A.17-07-010 (covering a three year rate  
21 case cycle from 2019 to 2021) and began providing the program in 2019 to its ratepayers.  
22 In accordance with AB 1180, the CCPPP should be concluded at the end of 2021. In  
23 addition, the authority to seek the Commission’s approval to operate a payment pilot  
24 program expires on January 1, 2022 – the very beginning of this GSWC GRC’s cycle  
25 (2022 – 2024), as such, the time period that GSWC is requesting for the continuation of

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<sup>66</sup> Assembly Bill 1180, Chapter 254.

<sup>67</sup> See Attachment 4-2, Report to the Legislature on Credit Card Pilot Program, p. 19.

<sup>68</sup> Attachment 4-1, GSWC Response to Public Advocates DR SLM-014, Q.1.

<sup>69</sup> Assembly Bill 1180, Chapter 254.

1 the CCPPP is beyond the time period authorized by AB 1180. The Commission should  
2 reject GSWC's request to continue to fund the program through rates as the pilot program  
3 is no longer authorized by law.

4  
5 B. The Commission's Report to the Legislature on Credit Card Payment Pilot  
6 Program

7 The Commission's Report on this pilot program concluded that "a broad waiver  
8 on transaction fees for all individuals paying by credit card is both cost ineffective and  
9 regressive in its impact on customer rates" and "that if the Legislature proposes to  
10 mandate a permanent waiver of transaction fees for individuals paying by credit card, the  
11 waiver should be limited to low-income customers, which will provide additional rate  
12 relief."<sup>70</sup> . The Report rests its conclusion the following three findings:<sup>71</sup>

- 13 1. GSWC's low-income customers did not significantly increase usage of credit  
14 card payments when transaction fees were removed.
- 15 2. The household debt burden and cost of water service [can] increase when  
16 customers choose to pay their water bills using credit card payments and pay  
17 the minimum amount on a monthly credit card bill.
- 18 3. That more customers are using card payments and the cost-effectiveness is  
19 dependent on the type of payment a customer is transitioning from.

20 Because the Commission found that, overall, the pilot program is not cost effective  
21 and has regressive impacts on customer rates, the Commission should not grant GSWC's  
22 request to continue the program.

23  
24 C. Cost-Causation Principle

25 The Commission should reject GSWC's request to continue the CCPPP as  
26 disallowing of the program aligns with the regulatory principle of cost-causation. The  
27 Federal Energy Regulatory Commission defines the cost-causation principle as both "cost

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<sup>70</sup> See Attachment 4-2, Report to the Legislature on Credit Card Pilot Program, p. 3.

<sup>71</sup> See Attachment 4-2, Report to the Legislature on Credit Card Pilot Program, p. 3.

causer pays” and “beneficiary pays” (where rates for service reflect the costs actually “caused” or imposed by the customers that must pay those rates).<sup>72</sup> The Illinois Commerce Commission defines cost-causation principle as costs that are recognized as being caused by a service or group of services if: (1) the costs are brought into existence as a direct result of providing the service or group of services; or (2) the costs are avoided if the service or group of services is not provided.<sup>73</sup> The Commission should reject GSWC’s request to continue the CCPPP and require customers to bear the direct cost of their payment choice.

#### D. Energy Utilities Do Not Offer A Similar Program

The Commission should reject GSWC’s request to continue the CCPPP as regulated energy utilities in California do not offer a similar program. The United States Census Bureau estimates that 39.51 million people resided in California in 2019.<sup>74</sup> Of the 39.51 million Californians, approximately 87.57% of the population is served by one of the energy utilities, PG&E, SCE, or SDG&E (approximately 16 million<sup>75</sup>, 15 million<sup>76</sup>, and 3.6 million<sup>77</sup> people served, respectively). Pacific Gas & Electric (PG&E) customers pay a \$1 or \$1.35 transaction fee for bill payments made with a credit card or debit card.<sup>78</sup> Southern California Edison (SCE) customers pay a \$1.65 transaction fee for bill payments made with a credit card or debit card.<sup>79</sup> San Diego Gas & Electric (SDG&E) customers pay a \$1.50 transaction fee for bill payments made with a credit card or debit card.<sup>80</sup> In addition, Bear Valley Electric Service, Inc (known as GSWC’s Bear Valley Electric Service Division prior to July 1, 2020, change as authorized by D.19-12-039)

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<sup>72</sup> <https://www.ferc.gov/sites/default/files/2020-05/E-12-Electric.pdf>

<sup>73</sup> <https://www.ilga.gov/commission/jcar/admincode/083/083007910000300R.html>

<sup>74</sup> United States Census Bureau, 2019 (<https://www.census.gov/quickfacts/CA>)

<sup>75</sup> [https://www.pgecorp.com/corp\\_responsibility/reports/2018/bu01\\_pge\\_overview.html](https://www.pgecorp.com/corp_responsibility/reports/2018/bu01_pge_overview.html)

<sup>76</sup> <https://www.edison.com/home/about-us.html>

<sup>77</sup> <https://www.sdge.com/more-information/our-company/about-us>.

<sup>78</sup> [https://www.pge.com/en\\_US/residential/your-account/your-bill/ways-to-pay/ways-to-pay.page](https://www.pge.com/en_US/residential/your-account/your-bill/ways-to-pay/ways-to-pay.page)

<sup>79</sup> <https://www.sce.com/customer-service/billing-payment/pay-my-bill>

<sup>80</sup> <https://www.sdge.com/residential/pay-bill/my-bill>

1 charges a “small service fee” for bill payments made with a credit card or debit card.<sup>81</sup>  
2 Thus, energy utilities adhere to the cost-causation principle with regards to transaction  
3 fees and, in light of the conclusion of the Commission’s Report, there is no justification  
4 for deviating from this principle here. As such, the Commission should reject GSWC’s  
5 request to continue the CCPPP.

#### 7 **IV. Conclusion**

8 The Commission should deny GSWC’s request to continue the CCPPP and the  
9 request to include the costs of providing the CCPPP in rates because (1) GSWC’s request  
10 to continue the CCPPP is beyond the time period authorized by AB 1180, (2) the  
11 Commission found that the pilot program is not cost effective and leads to regressive  
12 rates because participation was not limited to low income customers; (3) customers  
13 should bear the costs they cause the utility to incur and (4) energy utilities that serve  
14 87.57% of all Californians include a transaction fee for utility bills paid with a credit card  
15 or debit card. Removal of the CCPPP will not affect a customer’s ability to pay their bills  
16 with a credit card, debit card, or an electronic check service.

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<sup>81</sup> <https://www.bvesinc.com/customer-service/bill-payment-options/>

# **ATTACHMENT 1-1: STATEMENT OF QUALIFICATIONS**



## STATEMENT OF QUALIFICATIONS – SAM LAM

- Q1. Please state your name, business address, and position with the California Public Utilities Commission (Commission).
- A1. My name is Sam Lam and my business address is 320 West 4<sup>th</sup> Street, Suite 500, Los Angeles, California 90013. I am a Public Utilities Regulatory Analyst in the Water Branch of the Public Advocates Office.
- Q2. Please summarize your education background and professional experience.
- A2. I received a Bachelor of Science Degree in Business Administration from the University of Southern California. I have been with the Public Advocates Office – Water Branch since August 2019.
- Q3. What is your responsibility in this proceeding Golden State Water Company GRC A.20-07-012?
- A3. I am responsible for the preparation of Chapter (District A&G Expense Budget), (District Labor Expense Budget), (Conservation Expense Budget), and Special Request 4 (Credit Card Pilot Program).
- Q4. Does this conclude your prepared direct testimony?
- A4. Yes, it does.

**ATTACHMENT 1-2: GSWC RESPONSE TO**  
**PUBLIC ADVOCATES DATA REQUEST SLM-013,**  
**Q.1.**



October 28, 2020

Sam Lam, Public Advocates Office  
**CALIFORNIA PUBLIC UTILITIES COMMISSION**  
505 Van Ness Avenue  
San Francisco, CA 94102

Subject: Data Request SLM-013 (A.20-07-012)  
Santa Maria Regulatory Expenses Response  
Due Date: November 2, 2020

Dear Sam Lam,

In response to the above referenced data request number, we are pleased to submit the following responses:

**Question 1:**

Per "SLM-008 Q.1 WUDF 797 Detail" in Excel format, the "Journal Entry Explanation" for Invoice Number 2109FEB06CKREQ states "PROFORMA QUALITY PRINTING" in the Santa Maria CSA.

- a. Please explain what is "PROFORMA QUALITY PRINTING."
- b. Please provide the invoice for the above stated expense.

**Response 1:**

- a. PROFORMA QUALITY PRINTING is a vendor GSWC uses to provide printing and mailing services. This particular charge pertains to postage for a targeted mailing of recruitment fliers related to an open Level II Water Distribution Operator position in the Santa Maria CSA. The charge was erroneously coded to object account 7170 – Regulatory Expenses. The expense amount was not used in any future expense forecast for the Santa Maria CSA or the General Office due to its miscoding.
-

**ATTACHMENT 2-1: GSWC RESPONSE TO**  
**PUBLIC ADVOCATES DATA REQUEST AMX-003,**  
**Q.1.B TABLE NT-2**

Old Position				New Position		
Position #	Position Title	Pay Grade	2020 Salary Range	Position Title	Pay Grade	2020 Salary Range
10	VP Water Operations	900	Varies	VP of Asset Management	900	Varies
178	Office Assistant II	15	\$40,658 - \$65,235	Regulated Utility Support Analyst	20	\$57,650 - \$98,006
221	Call Center Support Analyst	17	\$47,485 - \$76,008	Regulated Utility Support Analyst	20	\$57,650 - \$98,006
246	Water Conservation Associate	17	\$47,485 - \$76,008	Regulated Utility Support Analyst	20	\$57,650 - \$98,006
173	Engineering Technician	20	\$57,650 - \$98,006	GIS Data Analyst	20	\$57,650 - \$98,006
179	CAD Technician	18	\$51,279 - \$82,227	GIS Tech	18	\$51,279 - \$82,227
188	CAD Technician	18	\$51,279 - \$82,227	GIS Tech	18	\$51,279 - \$82,227
488	CSR	39	\$65,574 - \$107,623	Water Distribution Sup	42	\$81,885 - \$139,336
42	Financial Plannig & Analysis Supervisor	42	\$81,885 - \$139,336	Financial Planning & Analysis Manager	44	\$106,320-175,259

**ATTACHMENT 3-1: GSWC RESPONSE TO  
PUBLIC ADVOCATES DATA REQUEST SLM-010,  
SLM-010 Q.2 2019 TO 2021 COST BENEFIT.PDF**

Golden State Water Company					
Region 1 – Arden Cordova					
Conservation Programs – Arden Cordova					
Program	Proposed Dollars			NPV*	B/C
	2019	2020	2021		
Regional Water Authority Dues	18,265	18,265	18,265	NA	NA
Conservation Promotional Items	2,500	2,500	2,500	NA	NA
Conservation Outreach	2,000	2,000	2,000	NA	NA
School Education Program	6,750	6,750	6,750	(\$4,831)	0.3
Workshops	1,500	1,500	1,500	NA	NA
Residential Audits	3,000	3,000	3,000	NA	NA
CII Audits	27,700	27,700	27,700	NA	NA
Outdoor Incentives	20,000	20,000	20,000	(\$18,331)	0.1
Sprinkler Nozzles (Residential)				(\$11,754)	0.4
Sprinkler Nozzles (Commercial)					
Direct Install Programs	25,773	25,773	25,773	(\$20,737)	0.2
<b>Total</b>	107,488	107,488	107,488		

\* Based on current cost of supply as future marginal costs have not been projected. Future avoided marginal costs need to be \$550 or greater to be cost effective.

## Cost Benefit Analysis

## School Program - Arden Cordova

Vendor Price	\$	25.00			
Net Unit cost =	\$	25.00			
Total Units =		270			
AF cost =	\$	90.53	R1		
Saving per Unit (yr) =		6,178	G	0.02	AF (325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		5	yr	0.09	AF
Total Acre foot savings =		25.6	AF	5.12	AF/YR

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	ROI		
	1.70%	Inflation Rate		
	6.64%	Real Interest rate		
	5	Number of payment periods		
	\$ 463.44	Annual Savings		
	\$ 2,317.21	Total projected savings		
PV, Water savings	-	Unit costs	=	NPV, Savings
\$1,919.38	-	\$ 6,750.00	=	(\$4,830.62)
0.3 B/C				

0.3 B/C

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 2,317.21	/	\$ 6,750.00	=	0.34

### C) Simple Pay-Back Analysis:

Life Savings		25.60	AF	\$	90.53	=	\$	2,317.21
Program cost	\$	6,750.00	/	\$	2,317.21	=	2.9	years pay back

Measure Values			Assumptions		Showerhead & Aerator Kit	
Measure	Value	Costs/unit	Deemed Savings	28.21 GPD	10,297 GPY/HH Savings	
Kit	28.2 gpd	\$ 25.00		gal	28.21 GPD/HH	
	gpd	\$ -		gal		
Total		\$ 25.00	Deployment Rate	60%		
Total	28.2 gpd					

Cost / Unit	\$ 25.00
GSWC Overhead	\$ -
	\$ 25.00

### Description

Resource Action Program's Water Wise curriculum and kit distribution.  
Foundational BMP not subject to CBA



## Cost Benefit Analysis

## WBIC - Arden Cordova

Vendor Price	\$	100.00			
Net Unit cost =	\$	100.00			
Total Units =		200			
AF cost =	\$	90.53	R1		
Saving per Unit (yr) =		4,203	G	0.01	AF (325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		10	yr	0.13	AF
Total Acre foot savings =		25.8	AF	2.58	AF/YR

Measure Values		
Measure	Value	Costs/unit
WBIC	11.5 gpd	\$ 100.00
	gpd	\$ -
Total		\$ 100.00
Total	11.5 gpd	

Assumptions		WBIC	
Deemed Savings	11.52 GPD	4,203 GPY/HH Savings	
	gal	11.52 GPD/HH	
	gal		
Deployment Rate	100%		

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	ROI
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	10	Number of payment periods
	\$ 233.57	Annual Savings
	\$ 2,335.67	Total projected savings
PV, Water savings	-	Unit costs = NPV, Savings
\$1,668.66	-	\$ 20,000.00 = (\$18,331.34)

0.1 B/C

Cost / Unit	\$ 100.00
GSWC Overhead	\$ -
	\$ 100.00

### Description

Rebate for qualified weather-based irrigation controllers

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 2,335.67	/	\$ 20,000.00	=	0.12

### C) Simple Pay-Back Analysis:

Life Savings	25.80	AF	\$	90.53	=	\$	2,335.67
Program cost	\$	20,000.00	/	\$	2,335.67	=	8.6 years pay back

## Cost Benefit Analysis

## Sprinkler Nozzles - Arden Cordova

Vendor Price	\$	4.00			
Net Unit cost =	\$	4.00			
Total Units =		5,000			
AF cost =	\$	90.53	R1		
Saving per Unit (yr) =		1,434	G	0.00	AF (325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		5	yr	0.02	AF
Total Acre foot savings =		110.0	AF	22.00	AF/YR

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	ROI
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	5	Number of payment periods
	\$ 1,991.66	Annual Savings
	\$ 9,958.30	Total projected savings
PV, Water savings	-	Unit costs
\$8,246.25	-	\$ 20,000.00
		= NPV, Savings
		(\$11,753.75)

0.4 B/C

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 9,958.30	/	\$ 20,000.00	=	0.50

### C) Simple Pay-Back Analysis:

Life Savings		110.00	AF	\$	90.53	=	\$	9,958.30
Program cost	\$	20,000.00	/	\$	9,958.30	=	2.0	years
								pay back

Measure Values			Assumptions			Efficient Nozzles	
Measure	Value	Costs/unit	Deemed Savings	3.93	GPD	Per Nozzle	1,434
Nozzles	3.9 gpd	\$ 4.00			gal		3.93
	gpd	\$ -			gal		GPD/HH
Total	3.9 gpd	\$ 4.00	Deployment Rate	100%			

Cost / Unit	\$ 4.00
GSWC Overhead	\$ -
	\$ 4.00

### Description

Voucher program for free Toro Precision Irrigation Nozzles  
Residential and commercial customers eligible

## Cost Benefit Analysis

## CII Direct Install - UHET/Aerator - Arden Cordova

Vendor Price	\$	300.00			
Net Unit cost =	\$	300.00			
Total Units =		86			
AF cost =	\$	90.53	R1		
Saving per Unit (yr) =		19,363	G	0.06	AF (325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		20	yr	1.19	AF
Total Acre foot savings =		102.1	AF	5.10	AF/YR

Measure Values			UHET Assumptions		Aerator	
Measure	Value	Costs/unit	Deemed Savings	47.23 GPD	2,125 GPY Savings	
UHET	47.2 gpd	\$ 300.00	Base Vol./F	3.5 gal	5.82 GPD	
Aerator	5.8 gpd	\$ -	UHET Vol	0.8 gal		
Total		\$ 300.00	Deployment Rate	100%	0.00652	
Total	53.0 gpd					

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	Interest Rate
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	20	Number of payment periods
	\$ 462.15	Annual Savings
	\$ 9,242.92	Total projected savings
PV, Water savings	-	Unit costs
\$5,036.29	-	\$ 25,773.00
		= NPV, Savings
		(\$20,736.71)
		0.2 B/C

Cost / Unit	\$ 300.00
GSWC Overhead	\$ -
	\$ 300.00

### Description

Target hotels and commercial buildings with gravity flush units to install Premium MaP products and HE aerators HE Aerator reduces 2.2 GPD to 0.5 [assuming 5 uses per day per occupant](#)

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 9,242.92	/	\$ 25,773.00	=	0.36

### C) Simple Pay-Back Analysis:

Life Savings		102.10	AF	\$ 90.53	=	\$ 9,242.92
Program cost	\$	25,773.00	/	\$ 9,242.92	=	2.8 years
						pay back

Golden State Water Company					
Region 1 – Bay Point					
Conservation Programs – Bay Point					
Program	Proposed Dollars			NPV*	B/C
	2019	2020	2021		
Conservation Promotional Items	\$ 1,000	\$ 1,000	\$ 1,000	NA	NA
Conservation Outreach	\$ 1,200	\$ 1,200	\$ 1,200	NA	NA
School Education Program	\$ 8,552	\$ 8,552	\$ 8,552	\$9,751	2.1
Workshops	\$ 500	\$ 500	\$ 500	NA	NA
CII Audit and Incentive	\$ 1,000	\$ 1,000	\$ 1,000	NA	NA
Total	\$ 12,252	\$ 12,252	\$ 12,252		

\* Based on current cost of supply as future marginal costs have not been projected.

## Cost Benefit Analysis

### School Program - Bay Point

Vendor Price	\$	33.00			
Net Unit cost =	\$	33.00			
Total Units =		259			
AF cost =	\$	899.71	R1		
Saving per Unit (yr) =		6,178	G	0.02 AF	(325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		5	yr	0.09 AF	
Total Acre foot savings =		24.6	AF	4.91	AF/YR

#### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	ROI
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	5	Number of payment periods
	\$ 4,420.74	Annual Savings
	\$ 22,103.68	Total projected savings
PV, Water savings	-	Unit costs
\$18,302.68	-	\$ 8,552.00
		NPV, Savings
		\$9,750.68
		2.1 B/C

#### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 22,103.68	/	\$ 8,552.00	=	2.58

#### C) Simple Pay-Back Analysis:

Life Savings		24.57	AF	\$	899.71	=	\$	22,103.68
Program cost	\$	8,552.00	/	\$	22,103.68	=	0.4	years
								pay back

Measure Values			Assumptions		Showerhead & Aerator Kit	
Measure	Value	Costs/unit	Deemed Savings	28.21	GPD	10,297
Kit	28.2 gpd	\$ 33.00			gal	28.21
		\$ -			gal	GPD/HH
Total		\$ 33.00	Deployment Rate	60%		
Total	28.2 gpd					
Cost / Unit		\$ 33.00				
GSWC Overhead		\$ -				
		\$ 33.00				

#### Description

Resource Action Program's Water Wise curriculum and kit distribution.  
Foundational BMP not subject to CBA

Golden State Water Company					
Region 1 – Clearlake					
Conservation Programs – Clearlake					
Program	Proposed Dollars			NPV*	B/C
	2019	2020	2021		
Conservation Promotional Items	\$ 250	\$ 250	\$ 250	NA	NA
Conservation Outreach	\$ 250	\$ 250	\$ 250	NA	NA
School Education Program	\$ 976	\$ 976	\$ 976	(\$822)	0.2
Workshops	\$ 700	\$ 700	\$ 700		
CII Audit and Incentive	\$ 1,967	\$ 1,967	\$ 1,967	NA	NA
Sprinkler Nozzles (Residential)				(\$1,155)	0.4
Sprinkler Nozzles (Commercial)					
<b>Total</b>	\$ 4,143	\$ 4,143	\$ 4,143		

\* Based on current cost of supply as future marginal costs have not been projected.  
Future avoided marginal costs need to be \$400 or greater to be cost effective.

## Cost Benefit Analysis

### School Program - Clearlake

Vendor Price	\$	33.00			
Net Unit cost =	\$	33.00			
Total Units =		30			
AF cost =	\$	65.94	R1		
Saving per Unit (yr) =		6,178	G	0.02 AF	(325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		5	yr	0.09 AF	
Total Acre foot savings =		2.8	AF	0.56 AF/YR	

#### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	ROI		
	1.70%	Inflation Rate		
	6.64%	Real Interest rate		
	5	Number of payment periods		
	\$ 36.98	Annual Savings		
	\$ 184.88	Total projected savings		
PV, Water savings	-	Unit costs	=	NPV, Savings
\$153.81	-	\$ 976.00	=	(\$822.19)
				0.2 B/C

#### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 184.88	/	\$ 976.00	=	0.19

#### C) Simple Pay-Back Analysis:

Life Savings		2.80 AF	\$	65.94	=	\$ 184.88
Program cost	\$	976.00	/	\$ 184.88	=	5.3 years pay back

Measure Values			Assumptions		Showerhead & Aerator Kit	
Measure	Value	Costs/unit	Deemed Savings	28.21 GPD	10,297 GPD/HH Savings	
Kit	28.2 gpd	\$ 33.00			28.21 GPD/HH	
		\$ -				
Total		\$ 33.00	Deployment Rate	60%		
Total	28.2 gpd					

Cost / Unit	\$ 33.00
GSWC Overhead	\$ -
	\$ 33.00

#### Description

Resource Action Program's Water Wise curriculum and kit distribution.  
Foundational BMP not subject to CBA

Cost Benefit Analysis

WBIC - Clearlake				
Vendor Price	\$	100.00		
Net Unit cost =	\$	100.00		
Total Units =		20		
AF cost =	\$	65.94	R1	
Saving per Unit (yr) =		4,203	G	0.01 AF (325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		10 yr		0.13 AF
Total Acre foot savings =		2.5 AF		0.25 AF/YR

A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;				
Given:		8.34%	ROI	
		1.70%	Inflation Rate	
		6.64%	Real Interest rate	
		10	Number of payment periods	
	\$	16.73	Annual Savings	
	\$	167.32	Total projected savings	
PV, Water savings	-	Unit costs	=	NPV, Savings
\$120.02	-	\$ 1,967.00	=	(\$1,846.98)
0.1 B/C				

B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;				
Water savings	/	Unit costs	=	Savings Ratio
\$ 167.32	/	\$ 1,967.00	=	0.09

C) Simple Pay-Back Analysis:

Life Savings		2.54 AF	\$	65.94	=	\$	167.32	
Program cost	\$	1,967.00	/	\$	167.32	=	11.8	years pay back

Measure Values		
Measure	Value	Costs/unit
WBIC	11.5 gpd	\$ 100.00
	gpd	\$ -
Total	11.5 gpd	\$ 100.00

Assumptions		WBIC
Deemed Savings	11.52 GPD	4,203 GPD/HH Savings
	gal	11.52 GPD/HH
	gal	
Deployment Rate	100%	

Cost / Unit	\$ 100.00
GSWC Overhead	\$ -
	\$ 100.00

**Description**  
Rebate for qualified weather-based irrigation controllers



Cost Benefit Analysis

Vendor Price	\$	4.00	
Net Unit cost =	\$	4.00	
Total Units =		492	
AF cost =	\$	90.53	R1
Saving per Unit (yr) =	1,434	G	0.00 AF (325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =	5	yr	0.02 AF
Total Acre foot savings =	10.8	AF	2.16 AF/YR

A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;			
Given:	8.34%	ROI	
	1.70%	Inflation Rate	
	6.64%	Real Interest rate	
	5	Number of payment periods	
	\$ 195.88	Annual Savings	
	\$ 979.40	Total projected savings	
PV, Water savings	-	Unit costs	= NPV, Savings
\$811.67	-	\$ 1,967.00	= (\$1,155.33)
0.4 B/C			

B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;			
Water savings	/	Unit costs	= Savings Ratio
\$ 979.40	/	\$ 1,967.00	= 0.50

C) Simple Pay-Back Analysis:

Life Savings	10.82	AF	\$	90.53	=	\$	979.40	
Program cost	\$	1,967.00	/	\$	979.40	=	2.0	years pay back

Sprinkler Nozzles - Clearlake

Measure Values			Assumptions			Efficient Nozzles	
Measure	Value	Costs/unit	Deemed Savings	3.93 GPD	Per Nozzle	1,434 GPD/HH	Savings
Nozzles	3.9 gpd	\$ 4.00			gal	3.93 GPD/HH	
		\$ -			gal		
Total	3.9 gpd	\$ 4.00	Deployment Rate	100%			

Cost / Unit	\$ 4.00
GSWC Overhead	\$ -
	\$ 4.00

**Description**  
Voucher program for free Toro Precision Irrigation Nozzles  
Residential and commercial customers eligible

Golden State Water Company					
Region 1 – Los Osos					
Conservation Programs – Los Osos					
Program	Forecasted Dollars (Includes Inflation & Growth)			NPV*	B/C
	2019	2020	2021		
Conservation Promotional Items	\$ 1,000	\$ 1,000	\$ 1,000	NA	NA
Conservation Outreach	\$ 1,000	\$ 1,000	\$ 1,000	NA	NA
School Education Program	\$ 2,259	\$ 2,259	\$ 2,259	\$545	1.2
Workshops	\$ 500	\$ 500	\$ 500	NA	NA
CII Audit and Incentive	\$ 3,000	\$ 3,000	\$ 3,000	NA	NA
Direct Install Program	\$ 1,205	\$ 1,205	\$ 1,205	\$1,207	2.0
<b>Total</b>	\$ 6,964	\$ 6,964	\$ 6,964		

\* Based on current cost of supply as future marginal costs have not been projected.

## Cost Benefit Analysis

## School Program - Los Osos

Vendor Price	\$	33.00			
Net Unit cost =	\$	33.00			
Total Units =		68			
AF cost =	\$	521.68	R1		
Saving per Unit (yr) =		6,178	G	0.02 AF	(325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		5 yr		0.09 AF	
Total Acre foot savings =		6.5 AF		1.30 AF/YR	

Measure Values			Assumptions		Showerhead & Aerator Kit	
Measure	Value	Costs/unit	Deemed Savings	28.21 GPD	10,297 GPV/HH Savings	
Kit	28.2 gpd	\$ 33.00		gal	28.21 GPD/HH	
	gpd	\$ -		gal		
Total		\$ 33.00	Deployment Rate	60%		
Total	28.2 gpd					

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	ROI		
	1.70%	Inflation Rate		
	6.64%	Real Interest rate		
	5	Number of payment periods		
	\$ 677.09	Annual Savings		
	\$ 3,385.44	Total projected savings		
PV, Water savings	-	Unit costs	=	NPV, Savings
\$2,803.88	-	\$ 2,259.00	=	\$544.88

1.2 B/C

Cost / Unit	\$ 33.00
GSWC Overhead	\$ -
	\$ 33.00

### Description

Resource Action Program's Water Wise curriculum and kit distribution.  
Foundational BMP not subject to CBA

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 3,385.44	/	\$ 2,259.00	=	1.50

### C) Simple Pay-Back Analysis:

Life Savings		6.49 AF	\$	521.68	=	\$ 3,385.44
Program cost	\$	2,259.00	/	\$ 3,385.44	=	0.7 years pay back

## Cost Benefit Analysis

## Direct Install Program - Los Osos

Vendor Price	\$	240.00		
Net Unit cost =	\$	240.00		
Total Units =		5		
AF cost =	\$	521.68	R1	
Saving per Unit (yr) =		27,534	G	0.08 AF (325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		20	yr	1.69 AF
Total Acre foot savings =		8.5	AF	0.42 AF/YR

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	Interest Rate
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	20	Number of payment periods
	\$ 221.33	Annual Savings
	\$ 4,426.56	Total projected savings
PV, Water savings	-	Unit costs
\$2,412.09	-	\$ 1,205.00
		= NPV, Savings
		\$1,207.09

2.0 B/C

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 4,426.56	/	\$ 1,205.00	=	3.67

### C) Simple Pay-Back Analysis:

Life Savings		8.49	AF	\$	521.68	=	\$	4,426.56
Program cost	\$	1,205.00	/	\$	4,426.56	=	0.3	years
								pay back

Measure Values			Assumptions		Showerhead & Aerator Kit	
Measure	Value	Costs/unit	Deemed Savings	47.23 GPD	10,297 GPY/HH Savings	
UHET	47.2 gpd	\$ 240.00	Base Vol./F	3.5 gal	28.21 GPD/HH	
Kit	28.2 gpd	\$ -	UHET Vol	0.8 gal		
Total	75.4 gpd	\$ 240.00	Deployment Rate	100%		

Cost / Unit	\$ 240.00
GSWC Overhead	\$ -
	\$ 240.00

Toilet Direct kit included:	0.8 GPF Toilet
	1.5 GPM Showerhead
	1.5 GPM Kitchen Aerator
	1 GPM Bath Aerator
	Seat
	Wax Ring/Bolts
	Flex Supply Line

Customer reservations screened for 3.5 / pre-1994 toilets

Higher water savings per household

Low income profile indicates greater savings opportunity indoors

Areas targeted historically low participation rate in rebates as up front costs are a factor

CPUC directed more emphasis with CARW customers

Program highly cost effective

Low GSWC personal/resource intensive

Estimates do not incorporate data that approximately 11% of toilets leak and the replacement eliminates waste through leaks

HET rebates typically replace with 1.28 GPF units compared to 0.8 GPF in Toilet Direct

Golden State Water Company					
Region 1 – Santa Maria					
Conservation Programs – Santa Maria					
Program	Proposed Dollars			NPV*	B/C
	2019	2020	2021		
Conservation Promotional Items	\$ 1,318	\$ 1,318	\$ 1,318	NA	NA
Conservation Outreach	\$ 500	\$ 500	\$ 500	NA	NA
School Education Program	\$ 13,012	\$ 13,012	\$ 13,012	\$44,652	4.4
Workshops	\$ 500	\$ 500	\$ 500	NA	NA
CII Audit and Incentive	\$ 6,000	\$ 6,000	\$ 6,000	NA	NA
Irrigation Audits & Incentives	\$ 2,000	\$ 2,000	\$ 2,000	NA	NA
Res Irrigation Incentives	\$ 2,500	\$ 2,500	\$ 2,500	NA	NA
Residential Audits	\$ 2,000	\$ 2,000	\$ 2,000	NA	NA
Sprinkler Nozzles (Residential)				\$20,126	9.1
Sprinkler Nozzles (Commercial)					
Direct Install Programs	\$ 10,000	\$ 10,000	\$ 10,000	\$61,480	7.1
Multifamily Direct Install	\$ 10,000	\$ 10,000	\$ 10,000	\$61,480	7.1
Total	\$ 47,830	\$ 47,830	\$ 47,830		

\* Based on current cost of supply as future marginal costs have not been projected.

## Cost Benefit Analysis

## School Program - Santa Maria

Vendor Price	\$	33.00			
Net Unit cost =	\$	33.00			
Total Units =		394			
AF cost =	\$	1,863.06	R1		
Saving per Unit (yr) =		6,178	G	0.02 AF	(325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		5 yr		0.09 AF	
Total Acre foot savings =		37.4 AF		7.48 AF/YR	

Measure Values			Assumptions		Showerhead & Aerator Kit	
Measure	Value	Costs/unit	Deemed Savings	28.21 GPD	10,297 GPY/HH Savings	
Kit	28.2 gpd	\$ 33.00		gal	28.21 GPD/HH	
	gpd	\$ -		gal		
Total		\$ 33.00	Deployment Rate	60%		
Total	28.2 gpd					

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	ROI
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	5	Number of payment periods
	\$ 13,928.21	Annual Savings
	\$ 69,641.05	Total projected savings
PV, Water savings -	Unit costs	= NPV, Savings
\$57,663.86 -	\$ 13,012.00	= \$44,651.86
4.4 B/C		

Cost / Unit	\$ 33.00
GSWC Overhead	\$ -
	\$ 33.00

### Description

Resource Action Program's Water Wise curriculum and kit distribution.  
Foundational BMP not subject to CBA

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 69,641.05	/	\$ 13,012.00	=	5.35

### C) Simple Pay-Back Analysis:

Life Savings	37.38 AF	\$ 1,863.06	=	\$ 69,641.05
Program cost	\$ 13,012.00	/	\$ 69,641.05	= 0.2 Years
Payback				

## Cost Benefit Analysis

## Sprinkler Nozzles - Santa Maria

Vendor Price	\$	3.75	
Net Unit cost =	\$	3.75	
Total Units =		667	
AF cost =	\$	1,863.06	R1
Saving per Unit (yr) =		1,434	G
Measure life (yrs) =		5	yr
Total Acre foot savings =		14.7	AF
		0.00	AF (325,851 Gallons = 1 Acre Foot)
		0.02	AF
		2.93	AF/YR

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	ROI
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	5	Number of payment periods
	\$ 5,464.98	Annual Savings
	\$ 27,324.88	Total projected savings
PV, Water savings	-	Unit costs
\$22,625.86	-	\$ 2,500.00
		= NPV, Savings
		= \$20,125.86
		9.1 B/C

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 27,324.88	/	\$ 2,500.00	=	10.93

### C) Simple Pay-Back Analysis:

Life Savings		14.67	AF	\$	1,863.06	=	\$	27,324.88
Program cost	\$	2,500.00	/	\$	27,324.88	=	0.1	Years
								Payback

Measure Values			Assumptions			Efficient Nozzles	
Measure	Value	Costs/unit	Deemed Savings	3.93 GPD	Per Nozzle	1,434 GPD/HH Savings	
Nozzles	3.9 gpd	\$ 3.75			gal	3.93 GPD/HH	
		\$ -			gal		
Total		\$ 3.75	Deployment Rate	100%			
Total	3.9 gpd						
		Cost / Unit	\$	3.75			
		GSWC Overhead	\$	-			
			\$	3.75			

### Description

Voucher program for free Toro Precision Irrigation Nozzles  
Residential and commercial customers eligible

Cost Benefit Analysis

Vendor Price	\$	240.00			
Net Unit cost =	\$	240.00			
Total Units =		42			
AF cost =	\$	1,863.06	R1		
Saving per Unit (yr) =		27,534	G	0.08 AF	(325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		20 yr		1.69 AF	
Total Acre foot savings =		70.4 AF		3.52 AF/YR	

Direct Install Program - Santa Ma

Measure	Measure Values		Assumptions		Showerhead & Aerator Kit
	Value	Costs/unit	Deemed Savings	47.23 GPD	
UHET	47.2 gpd	\$ 240.00	Base Vol./F	3.5 gal	10,297 GPD/HH Savings
Kit	28.2 gpd	\$ -	UHET Vol	0.8 gal	28.21 GPD/HH
Total	75.4 gpd	\$ 240.00	Deployment Rate	100%	

A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	Interest Rate
	1.70%	Inflation Rate
	6.64%	Real interest rate
	20	Number of payment periods
	\$ 6,559.52	Annual Savings
	\$ 131,190.48	Total projected savings
PV, Water savings -	Unit costs	= NPV, Savings
\$71,479.55 -	\$ 10,000.00	= \$61,479.55
		7.1 B/C

B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 131,190.48	/	\$ 10,000.00	=	13.12

C) Simple Pay-Back Analysis:

Life Savings		70.42 AF	\$	1,863.06	=	\$ 131,190.48
Program cost	\$	10,000.00	/	\$ 131,190.48	=	0.1 years pay back

Cost / Unit	\$ 240.00
GSWC Overhead	\$ -
	\$ 240.00

Toilet Direct kit included:	0.8 GPF Toilet
	1.5 GPM Showerhead
	1.5 GPM Kitchen Aerator
	1 GPM Bath Aerator
	Seat
	Wax Ring/Bolts
	Flex Supply Line

Customer reservations screened for 3.5 / pre-1994 toilets  
Higher water savings per household  
Low income profile indicates greater savings opportunity indoors  
Areas targeted historically low participation rate in rebates as up front costs are a factor  
CPUC directed more emphasis with CARW customers  
Program highly cost effective  
Low GSWC personal/resource intensive  
Estimates do not incorporate data that approximately 11% of toilets leak and the replacement eliminates waste through leaks  
HET rebates typically replace with 1.28 GPF units compared to 0.8 GPF in Toilet Direct



## Cost Benefit Analysis

## Multi Family Direct Install Program - Santa Maria

Vendor Price	\$	240.00			
Net Unit cost =	\$	240.00			
Total Units =		42			
AF cost =	\$	1,863.06	R1		
Saving per Unit (yr) =		27,534	G	0.08	AF (325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		20	yr	1.69	AF
Total Acre foot savings =		70.4	AF	3.52	AF/YR

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	Interest Rate
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	20	Number of payment periods
	\$ 6,559.52	Annual Savings
	\$ 131,190.48	Total projected savings
PV, Water savings	-	Unit costs
\$71,479.55	-	\$ 10,000.00
		= NPV, Savings
		= \$61,479.55

7.1 B/C

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 131,190.48	/	\$ 10,000.00	=	13.12

### C) Simple Pay-Back Analysis:

Life Savings		70.42	AF	\$	1,863.06	=	\$	131,190.48
Program cost	\$	10,000.00	/	\$	131,190.48	=	0.1	years
								pay back

Measure Values			Assumptions		Showerhead & Aerator Kit
Measure	Value	Costs/unit	Deemed Savings	47.23 GPD	10,297 GPD/HH Savings
UHET	47.2 gpd	\$ 240.00	Base Vol./F	3.5 gal	28.21 GPD/HH
Kit	28.2 gpd	\$ -	UHET Vol	0.8 gal	
Total		\$ 240.00	Deployment Rate	100%	
Total	75.4 gpd				

Cost / Unit	\$ 240.00
GSWC Overhead	\$ -
	\$ 240.00

Toilet Direct kit included:

- 0.8 GPF Toilet
- 1.5 GPM Showerhead
- 1.5 GPM Kitchen Aerator
- 1 GPM Bath Aerator
- Seat
- Wax Ring/Bolts
- Flex Supply Line

Customer reservations screened for 3.5 / pre-1994 toilets  
 Higher water savings per household  
 Low income profile indicates greater savings opportunity indoors  
 Areas targeted historically low participation rate in rebates as up front costs are a factor  
 CPUC directed more emphasis with CARW customers  
 Program highly cost effective  
 Low GSWC personal/resource intensive  
 Estimates do not incorporate data that approximately 11% of toilets leak and the replacement eliminates waste through leaks  
 HET rebates typically replace with 1.28 GPF units compared to 0.8 GPF in Toilet Direct

Golden State Water Company Region 1 – Simi Valley Conservation Programs					
Program	Proposed Dollars			NPV*	B/C
	2019	2020	2021		
Conservation Promotional Items	\$ 1,100	\$ 1,100	\$ 1,100	NA	NA
Conservation Outreach	\$ 1,000	\$ 1,000	\$ 1,000	NA	NA
School Education Program	\$ 10,946	\$ 10,946	\$ 10,946	\$55,595	6.1
CII Audit and Incentive	\$ 10,000	\$ 10,000	\$ 10,000	NA	NA
Irrigation Audits	\$ 12,000	\$ 12,000	\$ 12,000	NA	NA
Sprinkler Nozzles (Residential)				\$366,659	6.77
Sprinkler Nozzles (Commercial)					
Direct Install Programs	\$ 12,000	\$ 12,000	\$ 12,000	\$43,483	5.3
Total	\$ 47,047	\$ 47,047	\$ 47,047		

\* Based on current cost of supply as future marginal costs have not been projected.

## Cost Benefit Analysis

## School Program - Simi Valley

Vendor Price	\$	18.00			
Net Unit cost =	\$	18.00			
Total Units =		608			
AF cost =	\$	1,394.00	R1		
Saving per Unit (yr) =	\$	6,178	G	0.02 AF	(325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		5 yr		0.09 AF	
Total Acre foot savings =		57.6 AF		11.53 AF/YR	

Measure Values		
Measure	Value	Costs/unit
Kit	28.2 gpd	\$ 18.00
	gpd	\$ -
Total		\$ 18.00
Total	28.2 gpd	

Assumptions		Showerhead & Aerator Kit	
Deemed Savings	28.21 GPD	10,297 GPD/HH Savings	
	gal	28.21 GPD/HH	
	gal		
Deployment Rate	60%		

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	ROI
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	5	Number of payment periods
	\$ 16,072.52	Annual Savings
	\$ 80,362.61	Total projected savings
PV, Water savings	-	Unit costs
\$66,541.37	-	\$ 10,946.00
		= NPV, Savings
		\$55,595.37

6.1 B/C

Cost / Unit	\$ 18.00
GSWC Overhead	\$ -
	\$ 18.00

### Description

Resource Action Program's Water Wise curriculum and kit distribution.  
Foundational BMP not subject to CBA

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 80,362.61	/	\$ 10,946.00	=	7.34

### C) Simple Pay-Back Analysis:

Life Savings	57.65 AF	\$	1,394.00	=	\$ 80,362.61
Program cost	\$ 10,946.00	/	\$ 80,362.61	=	0.1 years
					pay back

## Cost Benefit Analysis

## Sprinkler Nozzles - Simi Valley

Vendor Price	\$	3.75			
Net Unit cost =	\$	3.75			
Total Units =		16,941			
AF cost =	\$	1,394.00	R1		
Saving per Unit (yr) =		1,434	G	0.00	AF (325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		5	yr	0.02	AF
Total Acre foot savings =		372.7	AF	74.54	AF/YR

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	ROI
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	5	Number of payment periods
	\$ 103,909.32	Annual Savings
	\$ 519,546.59	Total projected savings
PV, Water savings	-	Unit costs
\$430,187.87	-	\$ 63,528.75
	=	NPV, Savings
	=	\$366,659.12

6.8 B/C

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 519,546.59	/	\$ 63,528.75	=	8.18

### C) Simple Pay-Back Analysis:

Life Savings		372.70	AF	\$	1,394.00	=	\$ 519,546.59
Program cost	\$	63,528.75	/	\$	519,546.59	=	0.1 years
							pay back

## Measure Values

Measure	Value	Costs/unit
Nozzles	3.9 gpd	\$ 3.75
	gpd	\$ -
Total		\$ 3.75
Total	3.9 gpd	

## Assumptions

Deemed Savings	3.93 GPD	Per Nozzle	1,434 GPY/HH Savings
	gal		3.93 GPD/HH
	gal		
Deployment Rate	100%		

## Efficient Nozzles

Cost / Unit	\$ 3.75
GSWC Overhead	\$ -
	\$ 3.75

## Description

Voucher program for free Toro Precision Irrigation Nozzles  
Residential and commercial customers eligible

Cost Benefit Analysis

Direct Install Program - Simi Valle

Vendor Price	\$	240.00			
Net Unit cost =	\$	240.00			
Total Units =		42			
AF cost =	\$	1,394.00	R1		
Saving per Unit (yr) =		27,534	G	0.08	AF (325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		20	yr	1.69	AF
Total Acre foot savings =		70.4	AF	3.52	AF/YR

A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	Interest Rate
	1.70%	Inflation Rate
	6.64%	Real interest rate
	20	Number of payment periods
	\$ 4,908.04	Annual Savings
	\$ 98,160.83	Total projected savings
PV, Water savings -	Unit costs	= NPV, Savings
\$53,483.32 -	\$ 10,000.00	= \$43,483.32
		5.3 B/C

B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 98,160.83	/	\$ 10,000.00	=	9.82

C) Simple Pay-Back Analysis:

Life Savings		70.42	AF	\$	1,394.00	=	\$	98,160.83
Program cost	\$	10,000.00	/	\$	98,160.83	=	0.1	years pay back

Measure Values			Assumptions		Showerhead & Aerator Kit
Measure	Value	Costs/unit	Deemed Savings	47.23 GPD	10,297 GPD/HH Savings
UHET	47.2 gpd	\$ 240.00	Base Vol./F	3.5 gal	28.21 GPD/HH
Kit	28.2 gpd	\$ -	UHET Vol	0.8 gal	
Total		\$ 240.00	Deployment Rate	100%	
Total	75.4 gpd				

Cost / Unit	\$ 240.00
GSWC Overhead	\$ -
	\$ 240.00

Toilet Direct kit included:	0.8 GPF Toilet
	1.5 GPM Showerhead
	1.5 GPM Kitchen Aerator
	1 GPM Bath Aerator
	Seat
	Wax Ring/Bolts
	Flex Supply Line

Customer reservations screened for 3.5 / pre-1994 toilets  
Higher water savings per household  
Low income profile indicates greater savings opportunity indoors  
Areas targeted historically low participation rate in rebates as up front costs are a factor  
CPUC directed more emphasis with CARW customers  
Program highly cost effective  
Low GSWC personal/resource intensive  
Estimates do not incorporate data that approximately 11% of toilets leak and the replacement eliminates waste through leaks  
HET rebates typically replace with 1.28 GPF units compared to 0.8 GPF in Toilet Direct

**Multi Family Direct Install Program - Simi Valley**

Vendor Price = \$	240.00		
Net Unit cost = \$	240.00		
Total Units =	42		
AF cost = \$	1,394.00	R1	
Saving per Unit (yr) =	27,534	G	0.08 AF (325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =	20	yr	1.69 AF
Total Acre foot savings =	70.4	AF	3.52 AF/YR

	Measure Values		Assumptions	Showerhead & Aerator Kit
Measure	Value	Costs/unit	Deemed Savings	10,297 GPY/HH Savings
UHET	47.2 gpd	\$ 240.00	Base Vol./F	3.5 gal
Kit	28.2 gpd	\$ -	UHET Vol	0.8 gal
Total		\$ 240.00	Deployment Rate	100%
Total	75.4 gpd			

A) NPV (Net Present Value) Method:

Cost / Unit	\$ 240.00
GSWC Overhead	\$ -
	<u>\$ 240.00</u>

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	Interest Rate
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	20	Number of payment periods

		20	Number of payment per
	\$	4,908.04	Annual Savings
	\$	98,160.83	Total projected savings
PV, Water savings	-	Unit costs	= NPV, Savings
\$53,483.32	- \$	10,000.00	= \$43,483.32

### 5.3 B/C

B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 98,160.83	/	\$ 10,000.00	=	9.82

C) Simple Pay-Back Analysis:

Life Savings	70.42	AF	\$	1,394.00	=	\$	98,160.83
Program cost	\$	10,000.00	/	\$	98,160.83	=	0.1

pay back

Toilet Direct kit included:

- 0.8 GPF Toilet
- 1.5 GPM Showerhead
- 1.5 GPM Kitchen Aerator
- 1 GPM Bath Aerator
- Seat
- Wax Ring/Bolts
- Flex Supply Line

Customer reservations screened for 3.5 / pre-1994 toilets

Higher water savings per household

Low income profile indicates greater savings opportunity indoors

Areas targeted historically low participation rate in rebates as up front costs are a factor

CPUC directed more emphasis with CARW customers

Program highly cost effective

Low GSWC personal/resource intensive

Estimates do not incorporate data that approximately 11% of toilets leak and the replacement eliminates waste through leaks

HET rebates typically replace with 1.28 GPF units compared to 0.8 GPF in Toilet Direct

**Golden State Water Company  
Region 2**

**Conservation Programs – Region 2**

<b>Program</b>	<b>Proposed Dollars</b>			<b>NPV</b>	<b>B/C</b>
	<b>2019</b>	<b>2020</b>	<b>2021</b>		
Conservation Promotional Items	\$ 12,000	\$ 12,000	\$ 12,000	NA	NA
Conservation Outreach	\$ 6,000	\$ 6,000	\$ 6,000	NA	NA
School Education Program	\$ 96,000	\$ 96,000	\$ 96,000	\$632,047	7.6
CII Audit and Incentive	\$ 50,000	\$ 50,000	\$ 50,000	NA	NA
Irrigation Audits	\$ 35,000	\$ 35,000	\$ 35,000	NA	NA
Direct Install Programs	\$ 190,511	\$ 190,511	\$ 190,511	\$477,070	3.5
<b>Total</b>	<b>\$ 389,511</b>	<b>\$ 389,511</b>	<b>\$ 389,511</b>		

## Cost Benefit Analysis

## School Program - R2

Vendor Price	\$	13.00	
Net Unit cost =	\$	13.00	
Total Units =		7,385	
AF cost =	\$	1,256.00	R2
Saving per Unit (yr) =		6,178	G
Measure life (yrs) =		5	yr
Total Acre foot savings =		700.1	AF
		0.02	AF (325,851 Gallons = 1 Acre Foot)
		0.09	AF
		140.01	AF/YR

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	ROI
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	5	Number of payment periods
	\$ 175,855.46	Annual Savings
	\$ 879,277.29	Total projected savings
PV, Water savings	-	Unit costs
\$728,046.67	-	\$ 96,000.00
		= NPV, Savings
		= \$632,046.67
		7.6 B/C

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 879,277.29	/	\$ 96,000.00	=	9.16

### C) Simple Pay-Back Analysis:

Life Savings		700.06	AF	\$	1,256.00	=	\$ 879,277.29
Program cost	\$	96,000.00	/	\$	879,277.29	=	0.1 years
							pay back

Measure Values			Assumptions		Showerhead & Aerator Kit	
Measure	Value	Costs/unit	Deemed Savings	28.21 GPD	10,297 GPY/HH Savings	
Kit	28.2 gpd	\$ 13.00		gal	28.21 GPD/HH	
	gpd	\$ -		gal		
Total		\$ 13.00	Deployment Rate	60%		
Total	28.2 gpd					
		Cost / Unit	\$ 13.00			
		GSWC Overhead	\$ -			
			\$ 13.00			

### Description

Resource Action Program's Water Wise curriculum and kit distribution.  
Foundational BMP not subject to CBA



## Cost Benefit Analysis

## Direct Install Program - R2

Vendor Price	\$	292.00	
Net Unit cost =	\$	292.00	
Total Units =		652	
AF cost =	\$	1,256.00	R2
Saving per Unit (yr) =		24,361	G
Measure life (yrs) =		20 yr	1.50 AF
Total Acre foot savings =		975.5 AF	48.78 AF/YR

(325,851 Gallons = 1 Acre Foot)

Measure Values			Assumptions		Aerator Kit	
Measure	Value	Costs/unit	Deemed Savings	62.13 GPD	1,681 GPY/HH Savings	
UHET	62.1 gpd	\$ 200.00	Base Vol./F	3.5 gal	4.61 GPD/HH	
Installation		\$ 92.00	UHET Vol	0.8 gal		
Aerators	4.6 gpd	\$ -	Deployment Rate	100%		
Total		\$ 292.00				
Total	66.7 gpd					

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	Interest Rate
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	20	Number of payment periods
	\$ 61,262.70	Annual Savings
	\$ 1,225,254.01	Total projected savings
PV, Water savings	-	Unit costs
\$667,581.31	-	\$ 190,511.00
		= NPV, Savings
		\$477,070.31

3.5 B/C

Cost / Unit	\$ 292.00
GSWC Overhead	\$ -
	\$ 292.00

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 1,225,254.01	/	\$ 190,511.00	=	6.43

### C) Simple Pay-Back Analysis:

Life Savings	975.52 AF	\$ 1,256.00	=	\$ 1,225,254.01
Program cost	\$ 190,511.00	/	\$ 1,225,254.01	= 0.2 years
				pay back

Golden State Water Company					
Region 3					
Conservation Programs – Region 3					
Program	Proposed Dolalrs			NPV	B/C
	2019	2020	2021		
Conservation Promotional Items	\$ 12,500	\$ 12,500	\$ 12,500	NA	NA
Conservation Outreach	\$ 11,500	\$ 11,500	\$ 11,500	NA	NA
School Education Program	\$ 96,320	\$ 96,320	\$ 96,320	\$410,679	5.3
Workshops	\$ 7,000	\$ 7,000	\$ 7,000	NA	NA
CII Audit and Incentive	\$ 50,000	\$ 50,000	\$ 50,000	NA	NA
Irrigation Audits	\$ 25,000	\$ 25,000	\$ 25,000	NA	NA
Outdoor incentives	\$ 35,000	\$ 35,000	\$ 35,000	\$49,623	2.4
Direct Install Programs	\$ 206,634	\$ 206,634	\$ 206,634	\$295,926	2.4
Sprinkler Nozzles (Residential)				\$113,213	4.2
Sprinkler Nozzles (Commercial)					
Total	\$ 443,954	\$ 443,954	\$ 443,954		

### School Program - R3

Vendor Price	\$	13.00		
Net Unit cost =	\$	13.00		
Total Units =		7,409		
AF cost =	\$	871.75	R3	
Saving per Unit (yr) =		6,178	G	0.02 AF (325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		5	yr	0.09 AF
Total Acre foot savings =		702.4	AF	140.48 AF/YR

Measure Values		Assumptions		Showerhead & Aerator Kit	
Measure	Value	Costs/unit	Deemed Savings	28.21	GPY/HH Savings
Kit	28.2 gpd	\$ 13.00			28.21 GPD/HH
	gpd	<u>\$ -</u>			
Total		\$ 13.00	Deployment Rate	60%	
Total	28.2 gpd				

A) NPV (Net Present Value) Method:

Cost / Unit	\$ 13.00
GSWC Overhead	\$ -
	<u>\$ 13.00</u>

NPV = Discounted benefits - Discounted costs or;

	Given:	8.34%	ROI
		1.70%	Inflation Rate
		6.64%	Real Interest rate
		5	Number of payment periods
	\$	122,462.58	Annual Savings
	\$	612,312.91	Total projected savings
PV, Water savings	-	Unit costs	= NPV, Savings
\$506,998.84	- \$	96,320.00	= \$410,678.84

### 5.3 B/C

### Description

Resource Action Program's Water Wise curriculum and kit distribution.  
Foundational BMP not subject to CBA

B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 612,312.91	/ \$	96,320.00	=	6.36

C) Simple Pay-Back Analysis:

Life Savings	702.40	AF	\$	871.75	=	\$	612,312.91	
Program cost	\$	96,320.00	/	\$	612,312.91	=	0.2	years pay back

## Cost Benefit Analysis

## Direct Install - R3

Vendor Price	\$	332.00			
Net Unit cost =	\$	332.00			
Total Units =		105			
AF cost =	\$	871.75	R3		
Saving per Unit (yr) =		27,534	G	0.08 AF	(325,851 Gallons = 1 Acre Foot)
Measure life (yrs) =		20 yr		1.69 AF	
Total Acre foot savings =		178.2	AF	8.91 AF/YR	

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	Interest Rate
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	20	Number of payment periods
	\$ 7,765.66	Annual Savings
	\$ 155,313.29	Total projected savings
PV, Water savings	-	Unit costs
\$84,622.90	-	\$ 35,000.00
		= NPV, Savings
		\$49,622.90
		2.4 B/C

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 155,313.29	/	\$ 35,000.00	=	4.44

### C) Simple Pay-Back Analysis:

Life Savings		178.16	AF	\$	871.75	=	\$	155,313.29	
Program cost	\$	35,000.00	/	\$	155,313.29	=	0.2	years	pay back

Measure	Measure Values	Costs/unit	Assumptions	Showerhead & Aerator Kit
UHET	47.2 gpd	\$ 240.00	Deemed Savings 47.23 GPD	10,297 GPD/HH Savings
Installation		\$ 92.00	Base Vol./F 3.5 gal	28.21 GPD/HH
Kit	28.2 gpd	\$ -	UHET Vol 0.8 gal	
Total	75.4 gpd	\$ 332.00	Deployment Rate 100%	

Cost / Unit	\$ 332.00
GSWC Overhead	\$ -
	\$ 332.00

	GPF Toilet
Toilet Direct kit included:	0.8 GPM Showerhead
	1.5 GPM Kitchen Aerator
	1.5 GPM Bath Aerator
	1 Seat
	Wax Ring/Bolts
	Flex Supply Line

Customer reservations screened for 3.5 / pre-1994 toilets  
 Higher water savings per household  
 Low income profile indicates greater savings opportunity indoors  
 Areas targeted historically low participation rate in rebates as up front costs are a factor  
 CPUC directed more emphasis with CARW customers  
 Program highly cost effective  
 Low GSWC personal/resource intensive  
 Estimates do not incorporate data that approximately 11% of toilets leak and the replacement eliminates waste through leaks  
 HET rebates typically replace with 1.28 GPF units compared to 0.8 GPF in Toilet Direct

## Cost Benefit Analysis

## Toilet Direct Program - R3

Vendor Price	\$	292.00	
Net Unit cost =	\$	292.00	
Total Units =		708	
AF cost =	\$	871.75	R3
Saving per Unit (yr) =		24,361	G
Measure life (yrs) =		20	yr
Total Acre foot savings =		1058.1	AF
		0.07	AF (325,851 Gallons = 1 Acre Foot)
		1.50	AF
		52.90	AF/YR

Measure Values			Assumptions		Aerator Kit	
Measure	Value	Costs/unit	Deemed Savings	62.13 GPD	1,681	GPY/HH Savings
UHET	62.1 gpd	\$ 200.00	Base Vol./F	3.5 gal	4.61	GPD/HH
Installation		\$ 92.00	UHET Vol	0.8 gal		
Aerators	4.6 gpd	\$ -	Deployment Rate	100%		
Total		\$ 292.00				
Total	66.7 gpd					

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	Interest Rate
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	20	Number of payment periods
\$	46,119.03	Annual Savings
\$	922,380.63	Total projected savings
PV, Water savings	-	Unit costs
\$502,560.41	-	\$ 206,634.00
		= NPV, Savings
		= \$295,926.41

2.4 B/C

Cost / Unit	\$ 292.00
GSWC Overhead	\$ -
	\$ 292.00

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 922,380.63	/	\$ 206,634.00	=	4.46

### C) Simple Pay-Back Analysis:

Life Savings		1,058.08	AF	\$	871.75	=	\$ 922,380.63
Program cost	\$	206,634.00	/	\$	922,380.63	=	0.2 years
							pay back

## Cost Benefit Analysis

## Sprinkler Nozzles - R3

Vendor Price	\$	3.75	
Net Unit cost =	\$	3.75	
Total Units =		9,333	
AF cost =	\$	871.75	R3
Saving per Unit (yr) =		1,434	G
Measure life (yrs) =		5	yr
Total Acre foot savings =		205.3	AF
		0.00	AF (325,851 Gallons = 1 Acre Foot)
		0.02	AF
		41.07	AF/YR

### A) NPV (Net Present Value) Method:

NPV = Discounted benefits - Discounted costs or;

Given:	8.34%	ROI
	1.70%	Inflation Rate
	6.64%	Real Interest rate
	5	Number of payment periods
	\$ 35,799.87	Annual Savings
	\$ 178,999.33	Total projected savings
PV, Water savings	-	Unit costs = NPV, Savings
\$148,213.06	-	\$ 35,000.00 = \$113,213.06

4.2 B/C

### B) BCR (Benefit Cost Ratio) Method:

BCR = Sum of Discounted Benefits/Sum of Discounted Costs or;

Water savings	/	Unit costs	=	Savings Ratio
\$ 178,999.33	/	\$ 35,000.00	=	5.11

### C) Simple Pay-Back Analysis:

Life Savings		205.33	AF	\$	871.75	=	\$	178,999.33
Program cost	\$	35,000.00	/	\$	178,999.33	=	0.2	years
								pay back

Measure Values			Assumptions			Efficient Nozzles	
Measure	Value	Costs/unit	Deemed Savings	3.93 GPD	Per Nozzle	1,434 GPY/HH Savings	
Nozzles	3.9 gpd	\$ 3.75			gal	3.93 GPD/HH	
	gpd	\$ -			gal		
Total	3.9 gpd	\$ 3.75	Deployment Rate	100%			

Cost / Unit	\$ 3.75
GSWC Overhead	\$ -
	\$ 3.75

### Description

Voucher program for free Toro Precision Irrigation Nozzles  
Residential and commercial customers eligible

**ATTACHMENT 4-1: GSWC RESPONSE TO**  
**PUBLIC ADVOCATES DATA REQUEST SLM-014,**  
**Q.1.**



January 5, 2021

Sam Lam, Public Advocates Office  
CALIFORNIA PUBLIC UTILITIES COMMISSION  
505 Van Ness Avenue  
San Francisco, CA 94102

Subject: Data Request SLM-014 (A.20-07-012) Payment Options Response  
Due Date: January 5, 2021

Dear Sam Lam,

In response to the above referenced data request number, we are pleased to submit the following responses:

**Question 1:**

When did GSWC began accepting the following bill payment options:

- a. Credit card.
- b. Debit card.
- c. Electronic check services.

**Response 1:**

- a. September 2002
- b. Same response as 1.a.
- c. Same response as 1.a.



**ATTACHMENT 4-2: REPORT TO THE**  
**LEGISLATURE ON CREDIT CARD PILOT**  
**PROGRAM**



# REPORT TO THE LEGISLATURE ON CREDIT CARD PILOT PROGRAM

In Compliance With Public Utilities Code Section 915

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PUBLISHED JANUARY 2021



California Public  
Utilities Commission

Jeremy Ho

California Public Utilities Commission  
505 Van Ness Avenue, San Francisco, CA 94102

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## I. REPORT SUMMARY

This report provides three findings based on assessments required by Public Utilities Code Section 915. The first finding is that California American Water Company (Cal Am) experienced a significant increase of low-income customers using credit card payments after transaction fees are removed.<sup>1</sup> The results for Golden State Water Company's (Golden State) and Great Oaks Water Company's (Great Oaks) low-income customers did not indicate a significant increase in credit card use when transaction fees are removed. The second finding is that household debt burden and cost of water service increases when customers choose to pay their water bills using credit card payments and pay the minimum amount on a monthly credit card bill. The third finding is that more customers are using card payments and the cost-effectiveness is dependent on the type of payment a customer is transitioning from. The transition of customers from in-person to card transactions is cost-effective while the transition from other forms of payments (mail, Automated Clearing House or ACH, and electronic check) to card transactions is cost-ineffective. The report's findings focus on data prior to March 2020 to avoid outlier results caused by COVID-19.

The California Public Utilities Commission (CPUC) recommends that if the Legislature proposes to mandate a permanent waiver of transaction fees for individuals paying by credit card, the waiver should be limited to low-income customers, which will provide additional rate relief.

## II. LEGISLATIVE BACKGROUND

California Assembly Bill (AB) 1180 (Garcia, 2016) created Public Utilities (PU) Code Sections 755.5 and 915, which requires the CPUC to analyze and report to the Legislature whether more customers pay their water bills via credit card when transaction fees are removed.<sup>2</sup> PU Code 755 grants electric, natural gas, and water utilities the authority to charge customers a transaction fee for paying their utility bill by credit, debit, or prepaid card to cover the bank interchange fees associated with the transaction, unless the CPUC determines that the use of credit/debit cards results in no net cost to the utility.

AB 1180 created a pilot program that would require participating water utilities to: (1) waive the transaction fee for customers paying by credit card, debit card, and prepaid card; recover the costs of operating the pilot program from customers other than low-income customers; (2) notify customers of the temporary nature of the pilot program; and (3) collect information on the various forms of payment, including, but not limited to, costs, customer utilization, and customer expectations and satisfaction.

Pursuant to PU Code 755.5, the adopted pilot program requires Class A water utilities, utilities with over 10,000 connections, to submit a request of approval to participate through their General Rate Case applications, which occur once every three years and is limited to the duration of the water corporation's rate case cycle. The three Class A water utilities that requested authorization to participate in the credit card pilot program are California American Water Company, Golden State Water Company, and Great Oaks Water Company. The Commission authorized California American Water Company to participate in the credit card pilot program starting June 15, 2017. Golden State Water Company was authorized to participate in the pilot starting May 30, 2019. Great Oaks Water Company was authorized to participate in the pilot program starting September 12, 2019.

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<sup>1</sup> A low-income customer is defined as a household that participates in the water utility's assistance program.

<sup>2</sup> The Legislative Digest for AB 1180 is available at:

[https://leginfo.ca.gov/faces/billTextClient.xhtml?bill\\_id=201520160AB1180](https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB1180)

PU Code Section 915 requires the CPUC to report on the pilot programs operated by water corporations pursuant to PU Code Section 755.5 that includes: 1) an assessment of the use of credit cards by low-income customers to avoid service disconnections; 2) an assessment of impact of the use of credit cards for customer bills on household debt burden; and 3) an assessment of data, considered on an aggregated basis, regarding customer utilization and the cost-effectiveness of the bill payment options.

Based on these assessments, and an assessment of the customers' interests served by providing these bill payment options, the report shall evaluate the usefulness of the individual customer transaction fee required by Section 755. The report will also include a recommendation regarding individual customer transaction fees for credit card, debit card, and prepaid card payments accepted by water corporations.

In compliance with PU Code Section 915, the Commission hereby submits this report to the Assembly Committee on Utilities and Commerce, and the Senate Committee on Energy, Utilities and Communications.

### III. INTRODUCTION AND FINDINGS

More customers are transitioning to card payments for utility bills regardless of the transaction fee. In March 2020, the water utility offices were shut down to reduce the spread of COVID-19. As a result, customers used electronic payments as an alternative to mail-in and in-person payments. Data requests were submitted to utilities two years prior to the transaction fee waivers to determine whether more customers preferred card payments.

The first data request to the utilities detailed an analysis of the number of low-income customers that used card payments. After reviewing the data, Cal Am shows a statistically significant increase in low-income customers using card payments after transaction fee waivers.<sup>3</sup> Golden State and Great Oaks did not show a statistically significant increase in low-income customers that chose card payments until the COVID-19 pandemic. The recent increase reflects the closure of utility offices and that many low-income households must find alternative methods to in-person payments for water bills. This report focuses on the data prior to March 2020. This was done due to the months related to post-COVID-19 emergence resulting in statistical outlier results during the data analysis.

The household debt burden was analyzed by assuming that a customer only charges their water bill on a hypothetical credit card that accrues interest daily over a 12-month period. The analysis incorporated bills with and without transaction fees where the results indicated the difference in bills was due to interest and continued adding transaction fees. The analysis indicates that paying a utility bill using a card payment increased the household debt burden if the customer only paid the minimum amount on the credit card bill.

Data requests were submitted to utilities to determine customer utilization, and the approximate costs associated with different payment methods beginning two years prior to the waiver of transaction fees. Year-over-year, more customers are moving away from mail-in and in-person transactions and shifting towards electronic methods, including card payments. The results showed a decrease in utility costs borne by ratepayers when customers transition from in-person payments to card payments, but an increase in costs when customers switch from other forms of payments, such as mail, ACH, and electronic check.

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<sup>3</sup> A least-squares regression analysis and t-test were used to determine whether utilities displayed a statistically significant increase in low-income customers using card payments.

#### IV. REQUIRED ASSESSMENTS

Water utilities that chose to participate in the AB 1180 pilot program required Commission authorization through their General Rate Case (“GRC”) application. Three Investor-Owned Utilities (IOUs) requested to participate in the pilot program: California American Water Company (“Cal Am”), Golden State Water Company (“Golden State”), and Great Oaks Water Company (“Great Oaks”), where their transaction fees of \$1.95, \$1.45, and \$1.95, respectively. Transaction fees are paid directly to a third-party company handling the credit card transactions. Cal Am submitted Application (A.) 16-01-002 on July 1, 2016, requesting to participate in AB 1180’s credit card pilot program. The application was approved in Decision (D.)17-06-008, and Cal Am began implementing fee waivers on May 15, 2019. Golden State submitted application A.17-07-010 on July 19, 2017, and it was approved in D.19-05-044 on May 30, 2019. However, Golden State began waiving transaction fees beginning January 1, 2019. Great Oaks submitted A.18-07-002 on July 2, 2018, and the application was approved in D.19-09-010 on September 12, 2019. However, Great Oaks began waiving transaction fees beginning July 1, 2019. Table 1 displays each utility’s transaction fees, application number, date fee waivers began, and decision date.

**Table 1: Utility Transaction Fees and Application Information**

Utility	Transaction Fees	Application	Date Fee Waivers Began	Decision Date
Cal Am	\$1.95	A.16-01-002	May 15, 2019	6/15/17
Golden State	\$1.45	A.17-07-010	January 1, 2019	5/30/19
Great Oaks	\$1.95	A.18-07-002	July 1, 2019	9/12/19

Data requests were submitted to each utility to determine: 1) the number of low-income customers that paid their utility bills using a credit, debit, or prepaid card to avoid disconnections; 2) the different payment methods available; 3) the approximate costs of the different payment methods the utility incurs; and 4) the number of transactions for each payment method. Data was requested for 2 years prior to transaction fees being waived to observe the trends before and after utilities requested to participate in the AB 1180 credit card pilot program.

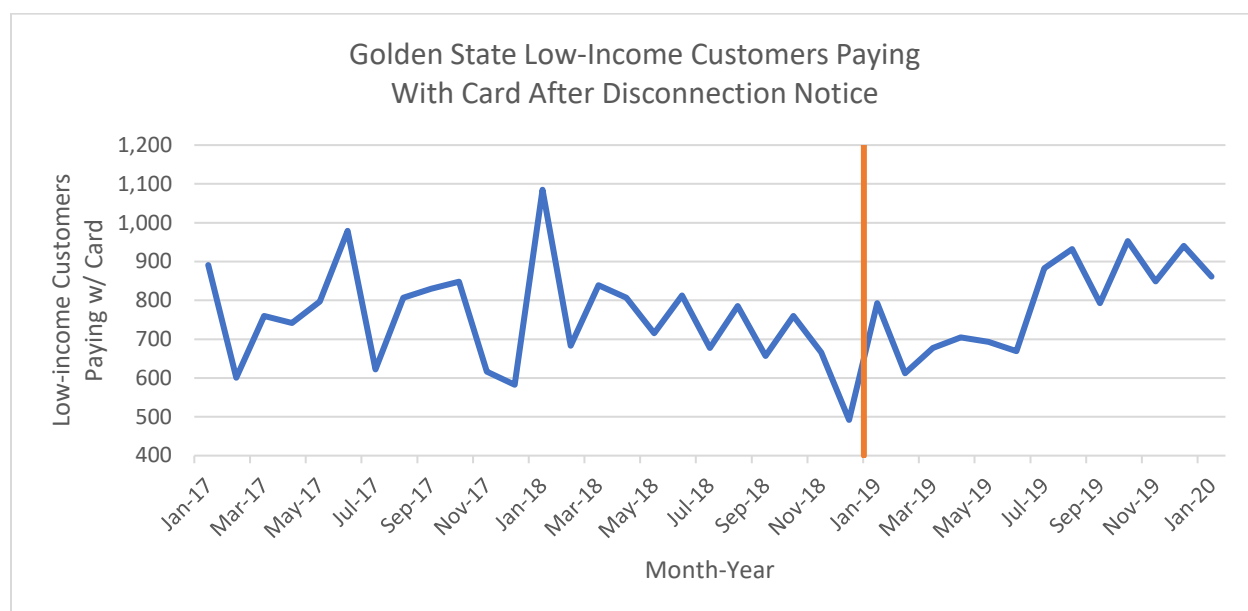
The sections below provide a summary and analysis based on data provided by the IOUs from data requests submitted to the CPUC. Initial data requests provided information past March 2020, but the COVID-19 pandemic created outlier in the data and favored card payments due to utility office closures. The report focuses on data prior to March 2020, and data after the start of COVID-19 was removed from the analysis.

##### **1. Mixed Response from Low-Income Customers Transitioning to Card Payments After Transaction Fee Waiver.**

Credit card use is becoming more frequent due the ease of digital transactions. As a result, an increasing number of households pay their utility bills using a credit card. Public Utilities Code Section 755 requires transaction fees to be paid by customers that choose credit, debit, or prepaid card payment options. The cost burden should not be shifted to customers that do not choose to pay a bill by these options unless

and until the Commission determines that the savings to ratepayers exceeds the net cost of accepting payments by these options. The first assessment in this report is to evaluate the use of credit, debit, or prepaid cards (card payment or credit cards) by low-income customers to avoid service disconnections.<sup>4</sup> CPUC Water Division collected data on the actions taken when low-income customers receive a disconnection notice from the utility, then decide to pay their utility bill using a credit, debit, or prepaid card. Data requests were also submitted to the utilities on for data on low-income customers that paid their utility bills after receiving a disconnection notice.

Only Golden State provided data on the number of low-income customers that received a disconnection notice and chose to pay their bill using a credit card. The vertical line in Figures 1, 3, 5, and 7 represent the date that utilities began waiving fees as indicated in Table 1.



**Figure 1: Golden State Low-Income Customers Paying with Card After Disconnection Notice**

Figure 1, does not show an impact for customers that chose to pay their utility bill using card payment after they received a disconnection notice. There is a downward trend in customers that chose to pay using card payment between February 2019 and July 2019. There was an initial increase in low-income customers using card payments in August 2019 and became stagnant until January 2020. After January 2020, the number of low-income customers making a card payment that received a disconnection notice dropped significantly primarily due to the beginning of the COVID-19 pandemic, the economic impact which began in March 2020. During this time, utilities were ordered to stop disconnections and reconnect customers that were previously disconnected. The data prior to COVID-19 indicates no significant increase in credit card usage after transaction fees were waived compared to the two years of data prior to when transaction fees were removed.

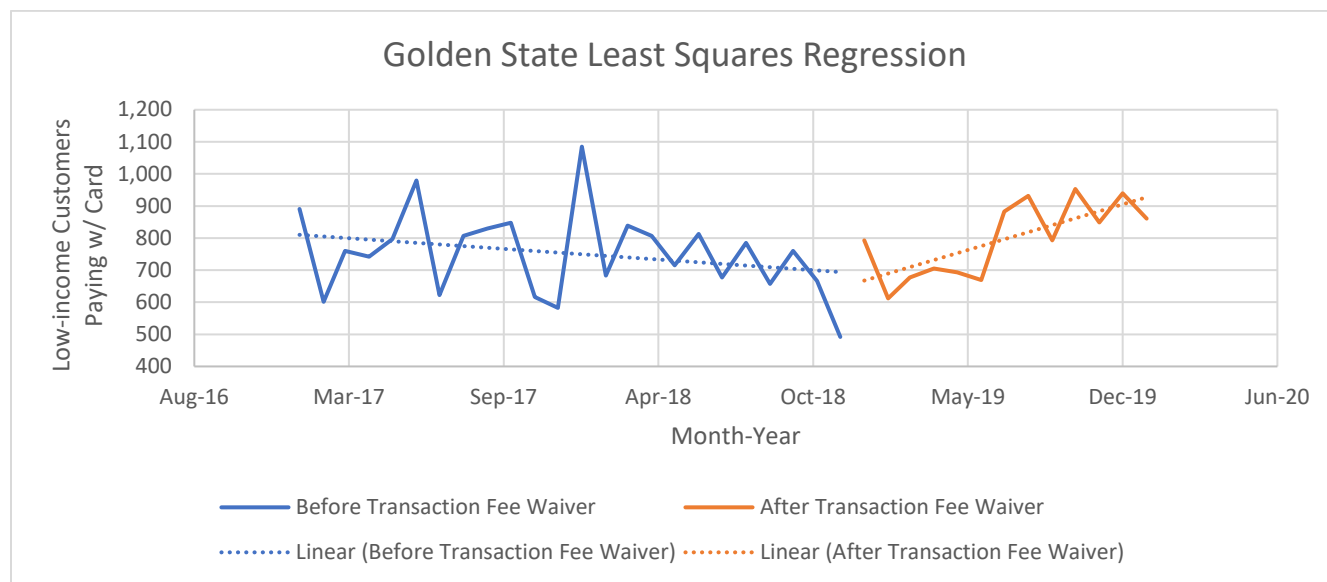
Figure 2, provides results of two least-squares regression analyses conducted to determine whether transaction fee waivers increased or decreased low-income customer utilization of card payments. A least-squares regression determines the line of best fit for data points. From the line of best fit, we can determine that a line trending upwards indicates an increase in low-income customers using credit cards

<sup>4</sup> See note 1.



and a downward trend indicates less customers using credit cards. Prior to transaction fee waivers, the regression resulted in a downward trend. After the transaction fee waiver, there is an upward trend for low-income customers that chose to make a card payment.

A further analysis was conducted to determine the relationship between the two trends by performing a t-test. This test determines whether there is a difference between the trends before and after transaction fee waivers. The t-test indicated that no significant difference was observed between before and after the transaction fees were waived.



**Figure 2 Golden State Least Squares Regression**

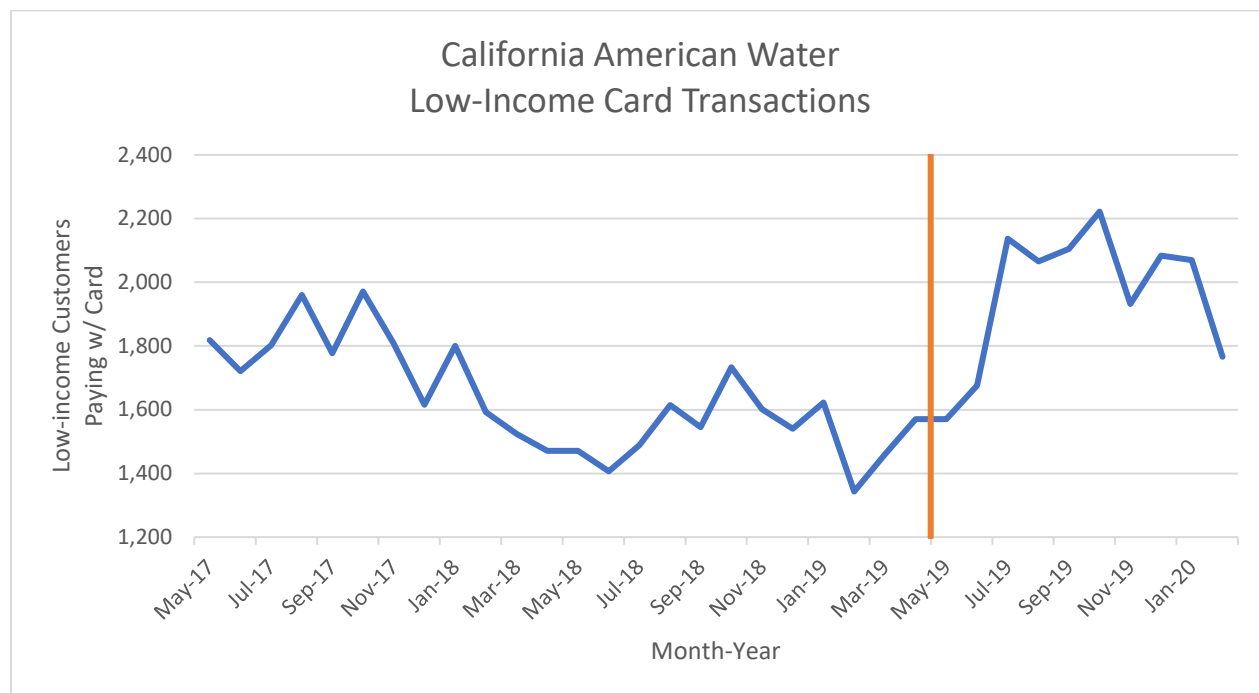
The responses from Cal Am and Great Oaks indicated that they were not able to distinguish when customers received a disconnection notice and whether the customers chose to pay with a credit card after receiving the notice. Cal Am and Great Oak's utility billing systems do not track the disconnection notices sent to customers. However, Great Oaks did provide data on the number of low-income customers that paid their bills using credit card after receiving disconnections and is displayed in Table 2 below.

**Table 2: Great Oaks Low-Income Households Reconnect Using Card Payment**

Month/Year	Low Income Households Reconnect Using Credit Cards
Jul-17	81
Jul-18	103
Jul-19	35

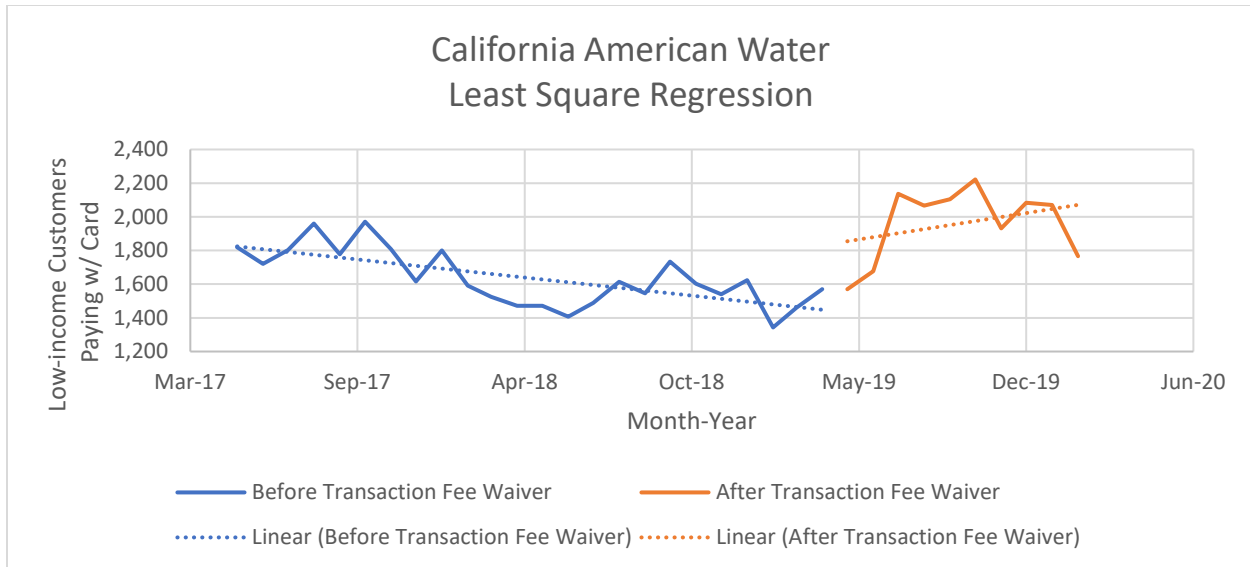
Due to a lack of information provided by the Cal Am and Great Oaks, an alternative was proposed by Assemblywoman Garcia's office to collect data on all low-income customers who used card payments, as opposed to only low-income customers that received a disconnection notice. The broader alternative was used to determine whether there was positive correlation between when transaction fees were waived and use of credit card payments. Figures 3 through 8 below show the results from data requests to utilities

requesting the number of low-income customers that used card payments to pay their bill. The vertical line in each figure represents the date that utilities began waiving fees.



**Figure 3 Cal Am Low-Income Credit Card Users**

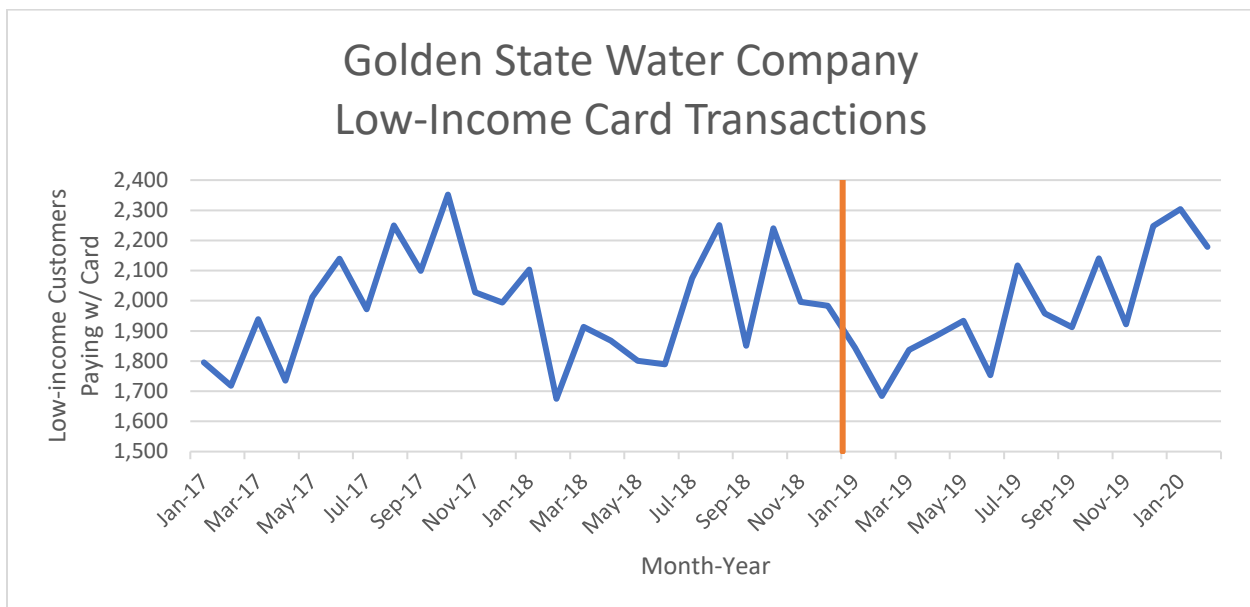
The data from Figure 3 shows an initial increase in low-income customers that pay using credit cards after transaction fees were waived. Following the initial increase in low-income customer credit card use, between July 2019 and February 2020, credit card transactions trended downwards. Before the start of COVID-19, credit card use returned to levels existing in 2017 and 2018, and before the transaction fees were waived. From March 2020 through July 2020 (not shown in Figure 3), there was an increase in card transactions due to the COVID-19 pandemic causing utility offices to be closed. Customers were then required to find alternatives to cash and in-person payments to pay their water bills.



**Figure 4 Cal Am Least Squares Regression**

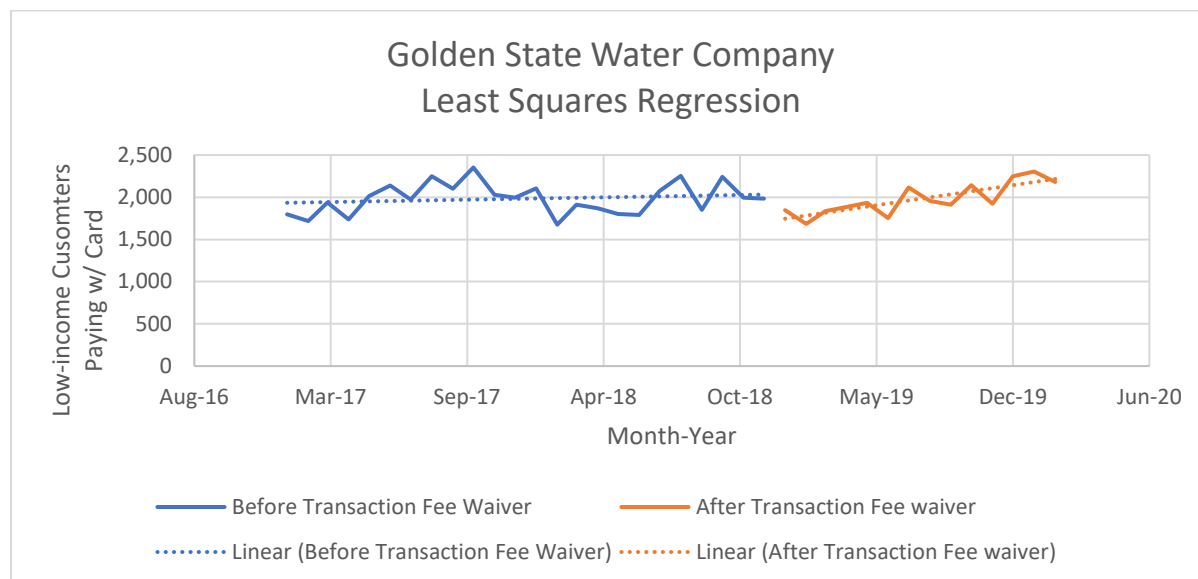
The least squares regression for the Cal Am data shows a downward trend for low-income card payments prior to waiving transaction fees. After transaction fees were waived, an upward trend can be seen for low-income customers using card payments after transaction fees were waived. The Cal Am data indicates that waiving transaction fees provided a positive response from low-income customers using credit cards for their payments.

A t-test was conducted comparing before and after the transaction fees were waived. The results show that there is a statistically significant difference between the two trend lines meaning that low-income customers were more likely to use card payments after the transaction fees were waived.



**Figure 5 Golden State Low-Income Credit Card Users**

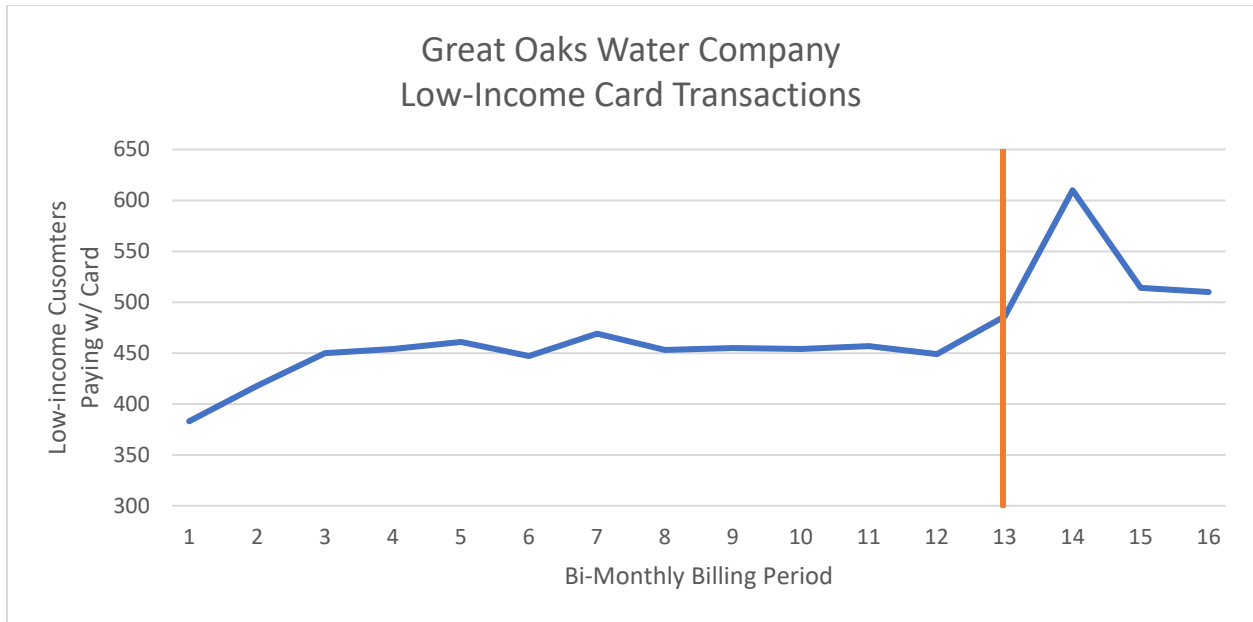
The data for Golden State, in Figure 5 shows that prior to COVID-19, the number of low-income customers paying by card did not significantly increase after transaction fees were removed. The office closures, after March 2020, caused all customers to pay their utility bills using electronic methods. Figure 5 represents the data prior to March 2020 and shows that the removal of transaction fees did not affect whether low-income customers chose card payments for their utility bills. The data indicates no significant increase in credit card usage after transaction fees were waived, as compared to the two years of data prior to when transaction fees were removed.



**Figure 6 Golden State Least Squares Regression**

Figure 6 above, shows the least square regression for Golden State shows an increasing trend in low-income customer card usage after the transaction fee was waived. The data before the transaction fees were waived show a slight upward trend in credit card use, but an even greater upward trend is shown after transaction fees were waived for low-income customers.

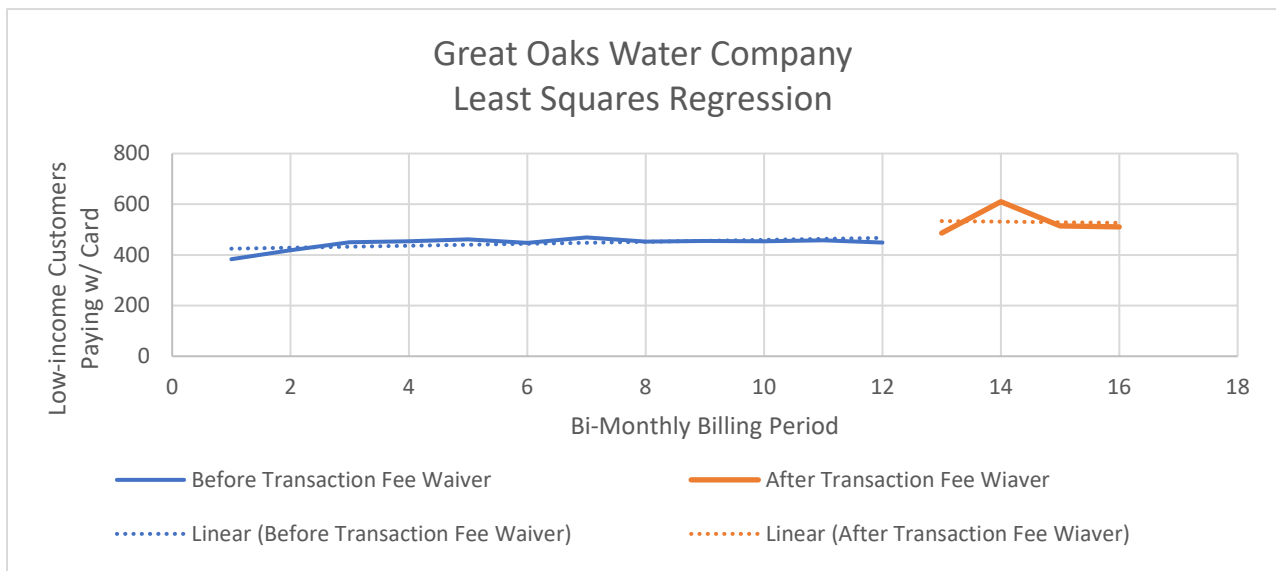
A t-test was performed on the two trends for Golden State, and the results indicate that low-income customer trends in credit card use is not statistically different before and after the transaction fees were waived.



**Figure 7 Great Oaks Low-Income Credit Card Users**

Great Oaks bills their customers on a bi-monthly basis; therefore, the data separated even and odd month credit card transactions for low-income customers. The data was normalized to provide meaningful results by summing the first month for even and odd months to create one value for the first month of each billing method. This was done for all subsequent months and the results can be found in Figure 7 above.

The data shows an increase in customer utilization when paying by credit card immediately after the transaction fees were waived, but declines two months afterward. The overall increase of credit card usage by low-income customers increases after transaction fees waivers by nearly 5%.



**Figure 8 Great Oaks Water Company Least Squares Regression**

The least square regression for Great Oaks in Figure 8, shows a slight upward trend prior to transaction fee waiver, and a slight downward trend post transaction fee waiver. The t-test between the two trends

indicate that low-income credit card use prior and post transaction fee waiver was not statistically significant.

In summary, the t-test results for Cal Am show a significant difference before and after transaction fees were waived, while the results for Golden State and Great Oaks did not.

## 2. Customers Using Credit Card Saw an Increase in Household Debt Burden

California has the tenth-highest median household income in the United States, which is \$71,564, while it also has the highest cost of living in the country.<sup>5</sup> Recent studies also indicate that California has the highest supplemental poverty rate of any state. The supplemental poverty rate incorporates a wider array of income measures than the official poverty rate, and then adjusts for the costs of living.<sup>6</sup> As a result of the high costs of living, households often face difficult trade-offs, such as choosing how and when to pay for housing, food, utility bills, or other expenses.

This section of the report assesses the financial impact of credit card debt on low-income households that decide to pay their water utility bills by credit card. There are many variables that contribute to the household debt burden and not all of them can be accounted for in this analysis. For example, there are many different types of credit cards available, and choosing a single credit card does not represent the entire population. Interest for each credit card is tied to a person's credit score and the age of a credit card. If an individual applying for a new credit card has excellent credit, they may receive a purchase Annual Percentage Rate (APR) interest rate of 13%, while an individual with fair credit will receive a purchase APR of 23%. The average purchase APR is 17% for new offers.

Another factor that varies between credit card companies is the minimum payment required on the monthly credit card bill. Credit card companies typically have a minimum payment that a customer needs to pay to avoid late fees if the customer does not want to, or cannot, pay their bill in full. Credit card companies determine the minimum monthly payment by using the greater value of the following methods: 1) a set amount minimum monthly amount such as \$25 or 2) using a percentage of the new balance on the credit card bill. In addition, water use amongst households fluctuates due to geographic variability and determining a single value for water usage for three utility water systems is a challenge.

For the analysis of household debt burden, a hypothetical scenario was created in which a low-income customer pays their water bill using a credit card and pays the minimum amount on the credit card bill, which accrues interest the following months. Assumptions were made that a low-income customer starts with no balance on the credit card and this is the first bill they received from the utility. The credit card has a 17% daily purchase APR, with the minimum balance being \$35 or 2% of the total bill, whichever is greater. The transition between a flat \$35 and 2% of the bill is \$1,750. Instead of calculating specific months, 30.4 days was used as an average number of days for each month. This was calculated by dividing 365, the number of days in a year, by twelve, the number of months in a year, to obtain the number of days per month. The last assumption made is that the bills are the same each month.

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<sup>5</sup> 2020 Median Household Income by State; <https://worldpopulationreview.com/state-rankings/median-household-income-by-state>

<sup>6</sup>Lina Fox, *The Supplement Poverty Measure: 2018*, October 2019, <https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-268.pdf>

Golden State was chosen as the example utility to represent California and data requests were made to receive a typical bill for each ratemaking area. A three-person households earning \$43,440 or less for the year qualify for Golden State’s low-income program. Table 3 below indicates the cumulative debt and interest a customer would accrue for each ratemaking area within Golden State’s jurisdiction after twelve months:

**Table 3: Golden State Low-Income Household Cumulative Debt Burden Analysis (No Transaction Fee)**

Ratemaking Area	Bill		Household Debt Burden												
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Year 5	Year 10
Arden Cordova	\$59.47	\$24.47	\$49.29	\$74.45	\$99.98	\$125.87	\$152.12	\$178.74	\$205.75	\$233.13	\$260.90	\$289.07	\$317.64	\$2,195	\$4,596
	Cumulative Interest		\$0.35	\$0.70	\$1.05	\$1.42	\$1.78	\$2.16	\$2.53	\$2.91	\$3.30	\$3.70	\$4.10	\$30.43	\$64.65
Bay Point	\$73.44	\$38.44	\$77.42	\$116.96	\$157.06	\$197.72	\$238.96	\$280.79	\$323.21	\$366.23	\$409.85	\$454.10	\$498.97	\$3,149	\$5,982
	Cumulative Interest		\$0.54	\$1.10	\$1.66	\$2.22	\$2.80	\$3.39	\$3.98	\$4.58	\$5.19	\$5.81	\$6.43	\$43.82	\$84.20
Clearlake	\$91.26	\$56.26	\$113.31	\$171.18	\$229.86	\$289.38	\$349.74	\$410.95	\$473.03	\$535.99	\$599.84	\$664.60	\$730.27	\$4,192	\$7,630
	Cumulative Interest		\$0.80	\$1.61	\$2.43	\$3.26	\$4.10	\$4.95	\$5.82	\$6.70	\$7.59	\$8.50	\$9.42	\$58.44	\$107.42
Los Osos	\$115.00	\$80.00	\$161.12	\$243.40	\$326.85	\$411.47	\$497.30	\$584.34	\$672.61	\$762.13	\$852.92	\$945.00	\$1,038	\$5,482	\$9,754
	Cumulative Interest		\$1.13	\$2.28	\$3.45	\$4.63	\$5.83	\$7.05	\$8.28	\$9.53	\$10.80	\$12.08	\$13.39	\$76.48	\$137.35
Santa Maria	\$66.53	\$31.53	\$63.50	\$95.93	\$128.82	\$162.17	\$196.00	\$230.30	\$265.09	\$300.38	\$336.16	\$372.45	\$409.25	\$2,703	\$5,314.5
	Cumulative Interest		\$0.45	\$0.90	\$1.36	\$1.82	\$2.30	\$2.78	\$3.26	\$3.76	\$4.26	\$4.76	\$5.28	\$37.56	\$74.78
Simi Valley	\$79.06	\$44.06	\$88.75	\$134.08	\$180.04	\$226.65	\$273.93	\$321.88	\$370.50	\$419.81	\$469.83	\$520.55	\$571.99	\$3,491	\$6,511
	Cumulative Interest		\$0.62	\$1.26	\$1.90	\$2.55	\$3.21	\$3.88	\$4.56	\$5.25	\$5.95	\$6.66	\$7.37	\$48.61	\$91.65
Region 2	\$86.23	\$51.23	\$103.19	\$155.88	\$209.32	\$263.51	\$318.47	\$374.22	\$430.75	\$488.08	\$546.22	\$605.19	\$665.00	\$3,908	\$7,172
	Cumulative Interest		\$0.73	\$1.46	\$2.21	\$2.97	\$3.73	\$4.51	\$5.30	\$6.10	\$6.91	\$7.74	\$8.57	\$54.46	\$100.97
Region 3	\$54.05	\$19.05	\$38.36	\$57.95	\$77.82	\$97.97	\$118.40	\$139.12	\$160.14	\$181.46	\$203.07	\$224.99	\$247.23	\$1,748	\$4,004
	Cumulative Interest		\$0.27	\$0.54	\$0.82	\$1.10	\$1.39	\$1.68	\$1.97	\$2.27	\$2.57	\$2.88	\$3.19	\$24.14	\$56.29



**Table 4: Golden State Low-Income Household Cumulative Debt Burden Analysis (Including Transaction Fee)**

Ratemaking Area	Household Debt Burden														
	Bill	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Year 5	Year 10
Arden Cordova	\$60.92	\$25.92	\$52.21	\$78.87	\$105.90	\$133.32	\$161.13	\$189.34	\$217.94	\$246.95	\$276.36	\$306.20	\$336.46	\$2,353	\$4,748
	Cumulative Interest		\$0.37	\$0.74	\$1.12	\$1.50	\$1.89	\$2.28	\$2.68	\$3.09	\$3.50	\$3.92	\$4.34	\$32.66	\$66.79
Bay Point	\$74.89	\$39.89	\$80.35	\$121.37	\$162.98	\$205.18	\$247.98	\$291.38	\$335.40	\$380.04	\$425.31	\$471.23	\$517.80	\$3,294	\$6,120
	Cumulative Interest		\$0.57	\$1.14	\$1.72	\$2.31	\$2.91	\$3.51	\$4.13	\$4.75	\$5.38	\$6.03	\$6.68	\$45.88	\$86.14
Clearlake	\$92.71	\$57.71	\$116.24	\$175.59	\$235.79	\$296.84	\$358.75	\$421.54	\$485.22	\$549.80	\$615.30	\$681.73	\$749.10	\$4,341	\$7,761
	Cumulative Interest		\$0.82	\$1.65	\$2.49	\$3.34	\$4.21	\$5.08	\$5.97	\$6.87	\$7.79	\$8.72	\$9.66	\$60.54	\$109.27
Los Osos	\$116.45	\$81.45	\$164.04	\$247.81	\$332.77	\$418.93	\$506.31	\$594.93	\$684.80	\$775.95	\$868.38	\$962.13	\$1,057	\$5,643	\$9,882
	Cumulative Interest		\$1.15	\$2.32	\$3.51	\$4.71	\$5.93	\$7.17	\$8.43	\$9.70	\$10.99	\$12.30	\$13.63	\$78.75	\$139.16
Santa Maria	\$67.98	\$32.98	\$66.42	\$100.34	\$134.74	\$169.63	\$205.01	\$240.89	\$277.28	\$314.19	\$351.62	\$389.58	\$428.08	\$2,851	\$5,457
	Cumulative Interest		\$0.47	\$0.94	\$1.42	\$1.91	\$2.40	\$2.90	\$3.41	\$3.93	\$4.45	\$4.98	\$5.52	\$39.66	\$76.79
Simi Valley	\$80.51	\$45.51	\$91.67	\$138.49	\$185.96	\$234.11	\$282.94	\$332.47	\$382.69	\$433.63	\$485.29	\$537.68	\$590.81	\$3,636	\$6,646
	Cumulative Interest		\$0.64	\$1.30	\$1.96	\$2.63	\$3.32	\$4.01	\$4.71	\$5.42	\$6.14	\$6.87	\$7.62	\$50.67	\$93.55
Region 2	\$87.68	\$52.68	\$106.11	\$160.29	\$215.24	\$270.97	\$327.49	\$384.81	\$442.94	\$501.89	\$561.68	\$622.32	\$683.82	\$4,055	\$7,304
	Cumulative Interest		\$0.75	\$1.50	\$2.27	\$3.05	\$3.84	\$4.64	\$5.45	\$6.27	\$7.11	\$7.96	\$8.82	\$56.53	\$102.83
Region 3	\$55.50	\$20.50	\$41.28	\$62.36	\$83.74	\$105.43	\$127.41	\$149.72	\$172.33	\$195.27	\$218.53	\$242.12	\$266.05	\$1,924	\$4,170
	Cumulative Interest		\$0.29	\$0.58	\$0.88	\$1.19	\$1.49	\$1.81	\$2.12	\$2.44	\$2.77	\$3.10	\$3.43	\$26.62	\$58.64

The data in Tables 3 and 4 show an exponential increase in household debt when customers pay their utility bill using credit card payments and choose to pay the minimum amount. The reason for the significant increase is that the residual balance accrues interest, and the new monthly bill is added onto the residual balance. Paying the minimum amount is beneficial in avoiding late fees, however, the added interest and compounded bills will cause the household debt burden to increase significantly over time.

The transaction fees increase the utility bill approximately nineteen dollars over a 12-month period if customers chose to pay their utility bill using the minimum payment.

While this analysis focuses on water bills, it should be noted that adding other expenses (clothes, food, housing, other utilities, etc.) will exponentially increase the month-to-month bills if households choose to pay the minimum amount on their credit cards. In addition, utilities have the right to shut off service to a household that is negligent in payment, and a cost is associated with reconnecting the house to the water utility. The reconnection costs can add to the household debt burden where the household will need to pay for an additional fee if they did not pay their utility bill in a timely manner. Table 5 lists the reconnection fees associated with each utility.

**Table 5 Reconnection Fee**

Utility	Reconnection (Normal Hours)	Reconnection (Off-Hours)
Cal Am	\$10	\$150
Golden State	\$40	\$120
Great Oaks	\$25	\$40

In summary, households that use credit cards to pay their utility bill increases the household debt burden if that household chooses to pay the minimum amount of their credit card bill. With interest, and the addition of a new utility bill the following month, a household's bill will continue to grow exponentially, thereby increasing the household debt burden and increasing the cost of water service through increasing interest charges.

### **3. Mixed Results for Customer Utilization and Costs Associated with Payments**

The final evaluation in this report is an assessment on customer utilization and the cost-effectiveness of the bill payment options on an aggregated basis. This compares the number of customers that use different payment methods against the costs associated with each method. Table 6, 7, 8, and 9 below, provide information of the historical customer utilization of different payment options beginning two years prior to the transaction fee waiver. Cal Am began waiving transaction fees beginning in May 2019 and the annual analysis period begins in May and ends in April. For Golden State, the annual analysis begins in January and ends in December due to the transaction fee waiver beginning in January 2019. Great Oaks did not provide data for both customer utilization and cost-effectiveness of the bill payment options. As a result, Great Oaks was unable to be analyzed for customer utilization and costs associated with payments. Data for customer utilization and costs associated with different bill payment options were removed after March 2020 due to COVID-19, which was not representative of normal credit card use for bill payments.

**Table 6 California American Water Customer Utilization**

Month/Year	Card	Mail	In-Person	ACH	Electronic Check
May-17 to April-18	139,388	634,913	75,645	931,642	135,580
May-18 to April-19	142,362	589,709	69,257	967,616	157,719
May-19 to Feb-20	163,430	445,967	50,222	802,580	117,611
Cost per Transaction	\$1.50	\$0.17	\$5.17	\$0.04	\$0.46

**Table 7 California American Water Customer Utilization (Percentage)<sup>7</sup>**

Month/Year	Card	Mail	In-Person	ACH	Electronic Check
May-17 to April-18	7%	33%	4%	49%	7%
May-18 to April-19	7%	31%	4%	50%	8%
May-19 to Feb-20	10%	28%	3%	51%	7%

Tables 6 and 7, show that more customers are moving away from mail and in-person transactions and switching to card payment or ACH transactions. ACH allows customers to pay their bills by money directly from the customer's bank accounts to the utility. There was a 5-percentage point decrease in mail payments and 1-percentage point decrease for in-person payments. Conversely, there was a 3-percentage point increase in card payments and a 2-percentage point increase in ACH transactions. Electronic check payments stayed relatively constant.

**Table 8 Golden State Customer Utilization**

Month/Year	Card	Mail	In-Person	ACH	Electronic Check	Other Online Payment
Jan-17 to Dec 17	268,948	806,371	318,155	284,309	28,845	831,218
Jan-18 to Dec-18	278,642	807,952	290,231	292,993	157,021	714,655
Jan-19 to Dec-19	294,570	705,254	258,317	247,737	290,469	614,279
Cost per Transaction	\$1.45	\$0.29	\$5.26	\$0.15	\$0.15	\$0.025

**Table 9 Golden State Customer Utilization (Percentage)<sup>8</sup>**

Month/Year	Card	Mail	In-Person	ACH	Electronic Check	Other Online Payment
Jan-17 to Dec 17	11%	32%	13%	11%	1%	33%
Jan-18 to Dec-18	11%	32%	11%	12%	6%	28%
Jan-19 to Dec-19	12%	29%	11%	10%	12%	25%

<sup>7</sup> Percentages calculated on a per year basis by dividing the customer utilization by the total customers for that year. This provides a yearly comparison based on the total customers.

<sup>8</sup> See note 7

Tables 8 and 9, show a 1-percentage point increase in card users from 2017 to 2019 and 2-percentage point decrease for in-person transactions. Mail-in transactions decreased by 3-percentage points in 2019. ACH transactions increased by 1-percentage point in 2018 and decreased by 2-percentage points in 2019. Other online payments decreased by 8-percentage points in 2019. Golden State began the electronic check program in May 2017 and explains the low customer utilization in the first year.

Tables 6 and 8, show that year-over-year, customers are switching from mail or in-person payments to digital payments such as ACH and electronic checks or card transactions. However, the costs per transaction for card payments is much greater than the other forms of payment except for in-person transactions. Customers that transition from in-person payments to card payments is a cost-effective transition because the bill payment costs are reduced. When customers transition from other cheaper payment options to higher card payments, this transition is cost-ineffective and causes an increase in overall costs to the utility borne by ratepayers.

While in-person utility costs per transaction are greater than other forms of payment, in-person payments remain as an option to support customers that do not interact with financial institutions and primarily pay with cash. The Commission has continued in-person payments to allow individuals to continue paying with cash instead of having these individuals rely on costly financial institutions for these transactions.

Table 10 provides a weighted average cost per transaction analysis that was conducted to compare the cost per transaction between years. The year 2020 was an outlier year due to COVID-19 and was removed from the data analysis. The weighted average cost per transaction was calculated by summing the product of the percentage of the customer utilization and the cost of that payment type. Table 11 provides the results for Cal Am and Golden State.

**Table 10 Weighted-Average Cost Per Transaction**

Company	2017	2018	2019
Cal Am	\$0.40	\$0.39	\$0.42
Golden State	\$0.93	\$0.89	\$0.87

The results from the weighted average cost per transaction vary between companies. For Cal Am, the weighted average cost per transaction decreased in 2018 and increased in 2019. For Golden State, the weighted average cost per transaction decreased in both 2018 and 2019.

In summary, over the period 2017-2019, Golden State's weighted average cost per transaction has been decreasing, while Cal Am's has been increasing as more customers transition to using credit-card payments from other lower-cost payment methods to pay for water bills. However, the costs associated with customers transitioning from one form of payment to another varies. While the overall cost each year decreased, the primary reason for this cost decrease of the transition is the switch from in-person payment methods to other forms of payment. Customers that transition from in-person payments to card payments is a cost-effective method and reduces the overall utility cost for customers. Customers who transition from other forms of payment to card payments results in cost-ineffective payment choices and increases the overall cost per transaction as indicated by the Cal Am results in Table 10.

## V. EVALUATION OF SEPARATE TRANSACTION FEES AND RECOMMENDATION

The assessments required by PU Code Section 915 do not provide a definitive evaluation of the benefits of waiving transaction fees on individuals paying water bills with credit cards. There is not a definitive and statistically significant difference in credit card payment trends across the three participating utility companies before and after transaction fees were waived. Cal Am's results show that there is a statistically significant increase in low-income customers that chose to pay with credit cards after transaction fees were waived. Golden State's and Great Oaks' results show no statistically significant increase in low-income customers paying with a credit card after transaction fees were waived.

Further, the analysis in Section IV.2 above, shows that paying with a credit card increases both the household's debt burden if the credit card bills are not paid in full each month and the cost of water service as interest charges are applied on unpaid balances from credit card companies.

Finally, Section IV.3 above, indicates that customers who transition from a high-cost in-person payment option to a credit card payment is cost-effective at lowering the weighted-average utility cost per transaction. However, the transition from other bill payment options (Mail, ACH, Electronic Check, or Other Online Payments) to credit cards is cost ineffective and increases the weighted average utility cost per transaction for the general body of ratepayers, which would increase rates charged for water service.

### ***Recommendation***

The CPUC recommends that if the Legislature determines to mandate a permanent waiver of transaction fees for individuals paying by credit card, it should limit the waiver to all low-income customers, which will provide additional rate relief. On the other hand, a broad waiver on transaction fees for all individuals paying by credit card is both cost ineffective and regressive in its impact on customer rates.